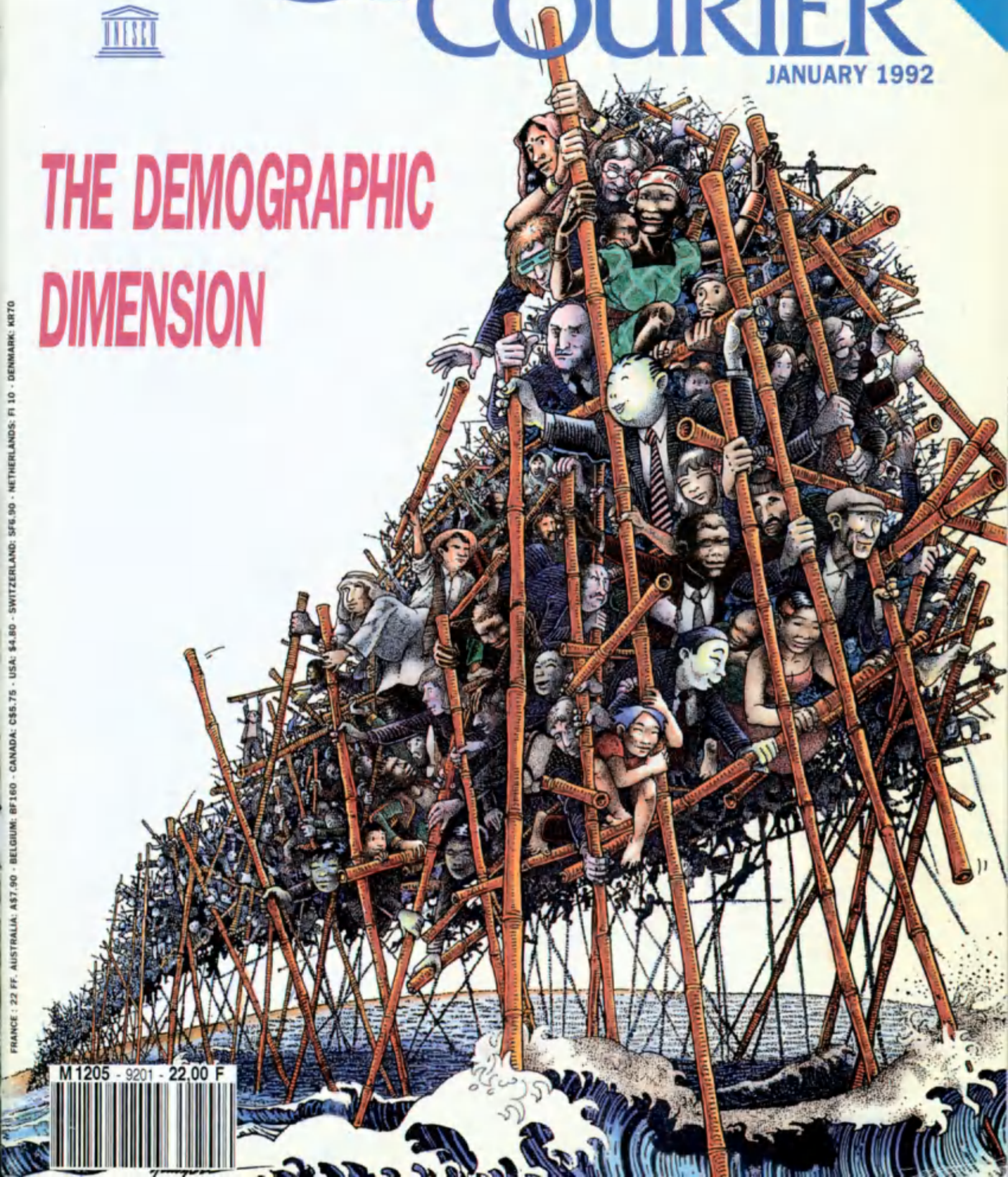
The UNESCO COURIER

JANUARY 1992

INTERVIEW WITH CARLOS FUENTES

THE DEMOGRAPHIC DIMENSION



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encounters

We invite readers to send us photographs to be considered for publication in this feature. Your photo should show a painting, a sculpture, piece of architecture or any other subject which seems to be an example of cross-fertilization between cultures. Alternatively, you could send us pictures of two works from different cultural backgrounds in which you see some striking connection or resemblance. Please add a short caption to all photographs.

On the Silk Road

1990, acrylic on wood and gold leaf
triptych (74 x 80 cm)
by Luis López Casado, alias Monseñor

Painted in a style that harks back to the European Middle Ages and Greco-Roman Antiquity, this triptych by the Spanish painter Monseñor conceals hidden treasure beneath its wings: a seductive portrait of an Oriental woman, limned with almost hieratic solemnity.

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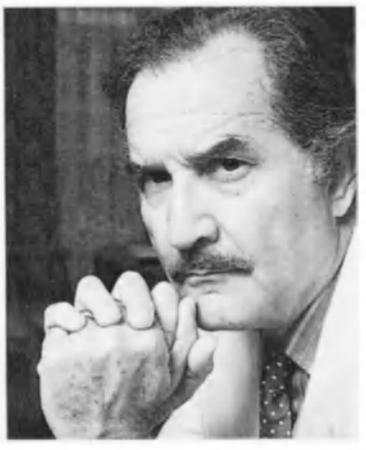
CARLOS FUENTES



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A mixed-media work by the French artist Gaüzère.

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Ink on watercolour paper by the Egyptian artist Faouzia Niazi-Lane.

The Editors wish to thank Messrs. Raúl Urzúa and Mehdi Amani for their help in the preparation of this issue.

le COURRIER de l'UNESCO
45th YEAR
Published monthly in 36 languages and in Braille

"The Governments of the States parties to this Constitution on behalf of their peoples declare,

"that since wars begin in the minds of men, it is in the minds of men that the defences of peace must be constructed...

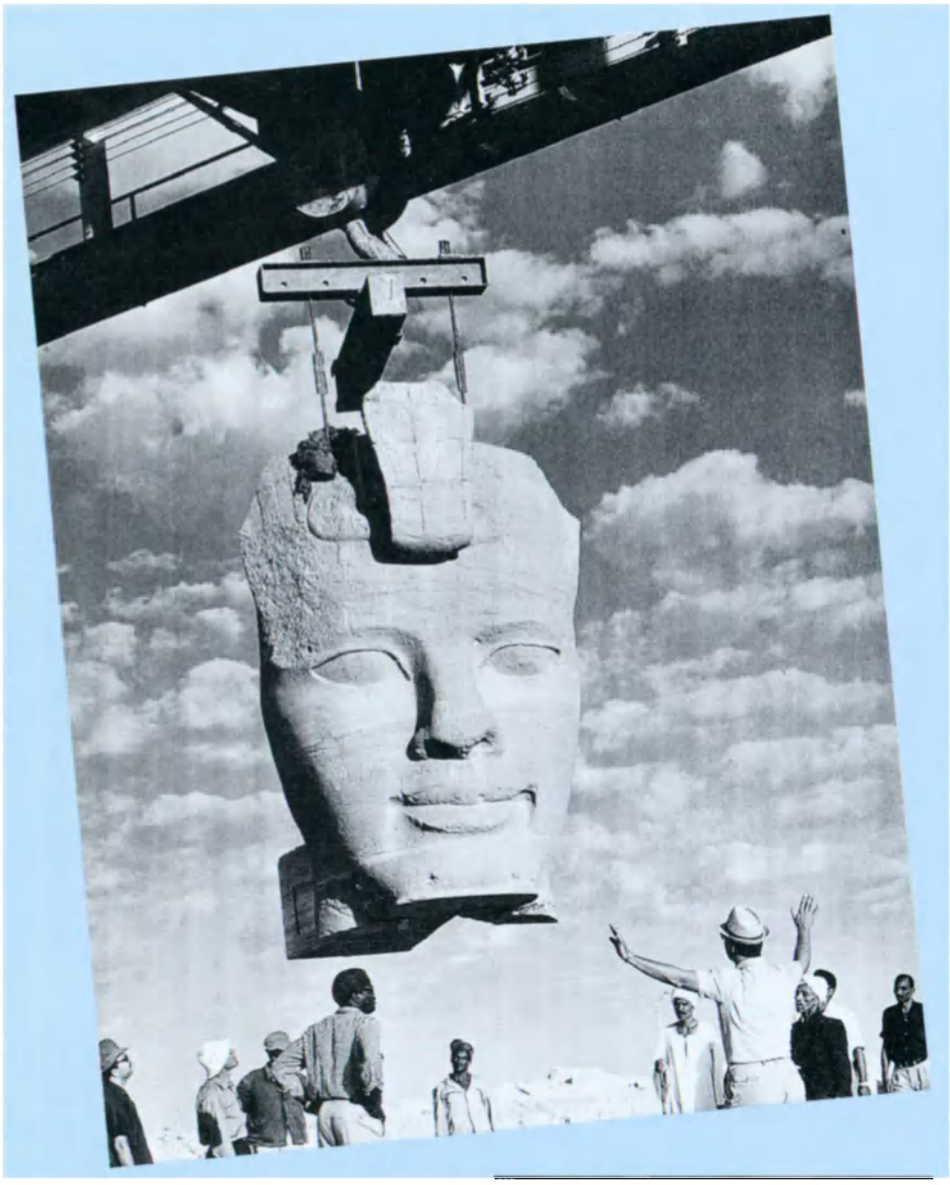
"that a peace based exclusively upon the political and economic arrangements of governments would not be a peace which could secure the unanimous, lasting and sincere support of the peoples of the world, and that the peace must therefore be founded, if it is not to fail, upon the intellectual and moral solidarity of mankind.

"For these reasons, the States parties ... are agreed and determined to develop and to increase the means of communication between their peoples and to employ these means for the purposes of mutual understanding and a truer and more perfect knowledge of each other's lives..."

Extract from the Preamble to the Constitution of UNESCO, London, 16 November 1945

UNESCO'S FIRST 45 YEARS (Part IV)

by Michel Conil Lacoste



The rescue of Abu Simbel

1968

General policy

■ At its 15th session, the General Conference takes the first step towards medium-term planning with the decision to draw up the broad outline of a plan for 1971-1976.

■ René Maheu is reelected for a new six-year mandate.

■ UNESCO has 125 Member States.

Education

■ 4 new literacy pilot projects are inaugurated (Ethiopia, Guinea, Madagascar, Tanzania); 3 others will follow: in Venezuela (1968), Sudan (1969) and Zambia (1971).

■ *The World Crisis in Education*, by Philip Coombs, is published.

■ The Youth Division is created within the Education Sector (it is currently part of the Sector of Social and Human Sciences).

Exact and natural sciences

■ A Conference on the Scientific Basis for Rational Use and Conservation of the Biosphere is held in Paris. This meeting, the first intergovernmental conference on the environment, leads to UNESCO's programme on Man and the Biosphere (MAB).

Social sciences

■ First edition of *Birthright of Man*, a selection of texts on human rights prepared under the direction of Jeanne Hersch.

Culture

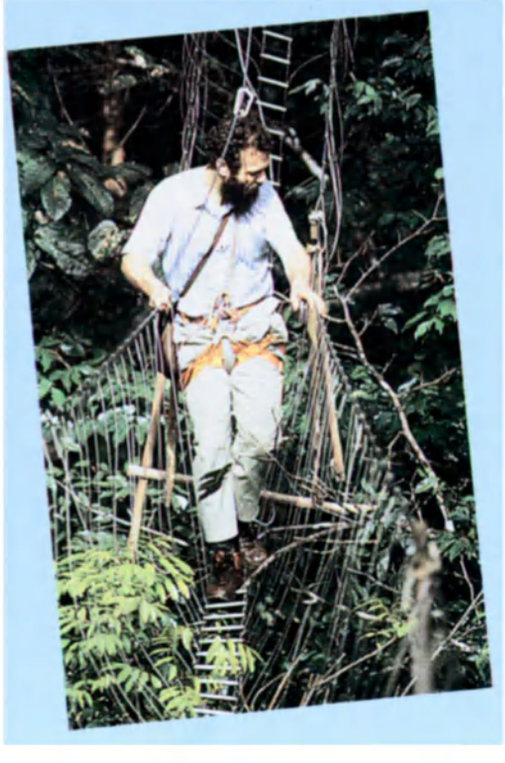
■ Meeting in Italy, the Executive Board examines a UNESCO report on the problems of Venice. The report was later published in Italy (Mondadori/UNESCO) and in France (*Sauver Venise*, Robert Laffont/UNESCO).

■ The Abu Simbel temples, reconstructed 64 metres above their original site on the banks of the Nile, are officially unveiled.

Events

■ A symposium on "The role of Karl Marx in the development of contemporary scientific thought" is held to mark the 150th anniversary of Marx's birth.

Left, moving the cliff temples of Abu Simbel was one of the most spectacular achievements of the international campaign to save the monuments of Nubia, launched in 1960.
Below, a scientist working on a MAB project in French Guiana studies the canopy of the rain forest, an ecosystem rich in animal and plant life.



1969

Education

■ The International Bureau of Education in Geneva (IBE) becomes part of UNESCO. Established in 1925, the IBE became an intergovernmental organization in 1929. It was for many years headed by Jean Piaget (Switzerland).
■ The USSR establishes the Nadezhda K. Krupskaya prize to help promote UNESCO's campaign against illiteracy. Four other international prizes to encourage literacy work are currently awarded: the International Reading Association Literacy Award, the Noma Literacy Prize, the Iraq Literacy Prize, and the King Sejong Prize.

Exact and natural sciences

■ UNESCO organizes an international symposium on the origins of modern man.

Communication

■ A meeting of experts held in Montreal outlines a plan for long-term research on technical progress in the communications media and the impact of the mass media on contemporary society.

Events

■ A symposium is held on "Truth and non-violence in Gandhi's humanism".
■ The UNESCO Prize for Architecture, awarded for the first time, goes to the Japanese architect Mitsuo Morozumi. The prize, awarded every three years at the assembly of the International Union of Architects (IUA), rewards the authors of works of architecture inspired by the moral aims of UNESCO.

1970

General policy

■ A new building in rue Miollis is inaugurated at UNESCO Headquarters in the presence of the Head of State of the host country, M. Georges Pompidou.
■ The Director-General decides to create a Secretariat Round Table to study improvements in programmes, management and human relations within the Secretariat.

Education

■ International Education Year. Paul Lengrand's study, *An Introduction to Lifelong Education*, is published.
■ An experimental project to promote equal access of girls and women to education is launched in the Gandaki region of Nepal, with financial assistance from NORAD (the Norwegian Agency for International Development).

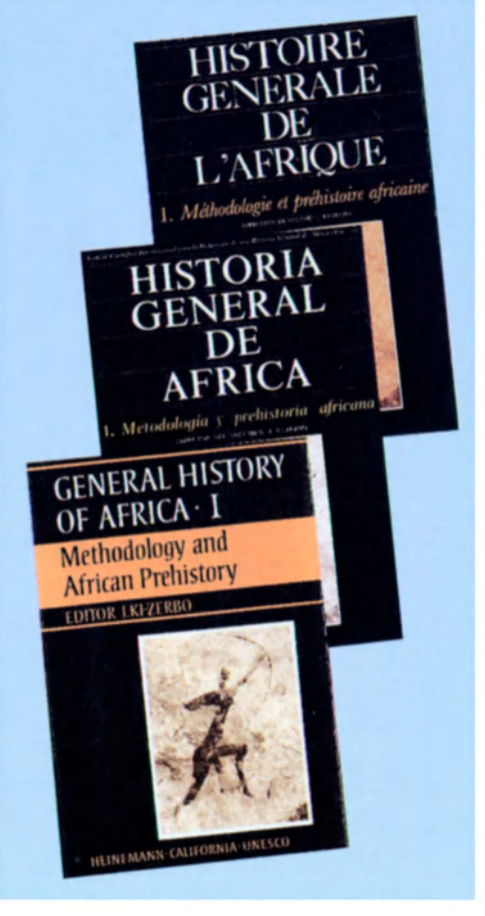
Exact and natural sciences

■ At a Conference of Ministers responsible for science policy in European Member States (MINESPOL), held at UNESCO Headquarters, 170 Ministers and delegates from 30 countries discuss the relative importance to be attached to applied and fundamental research.
■ A *Climatic Atlas of Europe* is published jointly with the World Meteorological Organization (WMO). This is the first of a series of climatic atlases covering the different continents.
■ A *Vegetation Map of the Mediterranean Region* is published.

Social sciences

■ The first part of a comprehensive study on *Main trends of research in the social and human sciences* is published. It covers sociology, political science, psychology, economics, demography and linguistics. The second part (1978) covers anthropology, history, aesthetics and art, law and philosophy. Authors include: Jean Piaget, Stein Rokkan, Paul Ricœur, Mikel Dufrenne, Maurice Freedman, Geoffrey Barraclough.

The first volume of the *General History of Africa* appeared in 1981. Since then 5 more volumes have been published in English.


HISTOIRE GENERALE DE L'AFRIQUE
I. Méthodologie et préhistoire africaine
HISTORIA GENERAL DE AFRICA
I. Metodología y prehistoria africana
GENERAL HISTORY OF AFRICA · I
Methodology and African Prehistory
EDITOR I. KI-ZERBO
HEINEMANN-CALIFORNIA-UNESCO

Culture

■ An intergovernmental conference is held in Venice to examine the institutional, administrative and financial aspects of cultural policies. The conference, which marks the emergence in the late 1960s of the notions of "cultural development" and the "cultural dimension of development", leads to a series of regional intergovernmental conferences: Eurocult (Helsinki, 1972); Asiacult (Yogyakarta, 1973); Africacult (Accra, 1975); Americacult (Bogota, 1978), Conference of Arab Ministers of Culture-Alecso (Baghdad, 1981).
■ The Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property is adopted to combat a form of smuggling which has been known to rob entire peoples of their heritage.
■ A study programme on Slav cultures is launched.

Focus on the environment

1971

General policy

■ Portugal announces its withdrawal from UNESCO (effective end 1972). Portugal resumes membership in 1974.
■ The Executive Board adopts a resolution recognizing the People's Republic of China as the only legitimate representative of China at UNESCO. A similar decision had been taken previously by the United Nations.

Exact and natural sciences

■ The International Co-ordinating Council of the Man and the Biosphere (MAB) Programme holds its first meeting. MAB is an intergovernmental interdisciplinary programme which seeks to develop scientific knowledge about the rational management and conservation of natural resources. More than 10,000 researchers from some 110 countries participate in this world-wide effort to reconcile the demands of development with respect for the environment and its resources.
■ An Intergovernmental Conference for the establishment of a world science information system (UNISIST) is organized in conjunction with ICSU.

Culture

■ The first session is held of the International Scientific Committee for the drafting of a *General History of Africa* (39 members, two-thirds of whom are Africans).

Communication

■ A survey in 11 African countries on the practical possibilities of developing a rural press leads to the launching of a series of rural newspapers in Africa. The following year, the first rural newspaper in Bambara is published in Mali with UNESCO aid.

Protecting the heritage

1972

General policy

■ The General Conference adopts the Convention concerning the Protection of the World Cultural and Natural Heritage. The Convention comes into force in 1975, and becomes operational in 1978 when the first 12 sites are put on the World Heritage List and the first financial aid is given from the World Heritage Fund.
■ The German Democratic Republic becomes UNESCO's 130th Member State.

Education

■ *Learning to Be,* the report drawn up by the International Commission on the Development of Education, under the chairmanship of Edgar Faure (France) makes a stimulating contribution to world thinking on education.
■ The European Centre for Higher Education is established at Bucharest.
■ Educational innovation networks for development are launched in Asia (1972); Africa (1976); Southeast Europe (1977), the Caribbean (1979) and the Arab States (1981).
■ *Prospects,* a quarterly review of education, is launched. Currently published in 7 languages.

Culture

■ A ten-year plan for the study of the oral tradition and the promotion of African languages is adopted.
■ The first festival of the arts of the Pacific is held in Fiji. Others will be held later in 1976 (New Zealand), 1980 (Papua-New Guinea), 1985 (Tahiti), 1988 (Australia). The 6th is scheduled to take place in 1992 in the Cook Islands, which became a full Member State of UNESCO in 1989.
■ Two series of cultural studies on Latin America are launched: (1) *América Latina en su cultura* (6 volumes published to date, on literature, the plastic arts, architecture, etc.); (2) *El mundo en América Latina* (3 vols. on the different ethnocultural components of the population of Latin America).

A reader scans *Kibaru* ("News"), a rural newspaper published in the Bambara language in Mali.

■ International Book Year is marked by the launch of a long-term reading and book development programme.

Communication

■ UNESCO holds its first enquiry into the international diffusion of television programmes.
■ Consultants are sent on mission to the Caribbean to launch a multi-media enquiry into the development of the communication media in the region. Results include a training programme for journalists and media technicians and the creation of a Caribbean news agency (CANA).
■ A training programme for radio and TV specialists in Asia is launched, paving the way for the establishment of the Asian Institute for Broadcasting Development. It is later expanded to include the Pacific region.

1973

Education

■ A Regional Office for Education in the Arab States is established in Beirut. Similar Offices already exist in Dakar, Bangkok and Santiago (Chile). In this year funding for UNESCO-UNDP teacher training projects stands at $22 million.
■ The International Council for Adult Education (ICAE) is established.

Exact and natural sciences

■ The first session is held of the Board of the International Geological Correlation Programme (IGCP). This programme, executed jointly with the International Union of Geological Sciences, seeks to increase our understanding of the Earth's crust and the origin of natural resources.
■ An *International Manual on Irrigation, Drainage and Salinity* is published jointly with the Food and Agriculture Organization of the United Nations (FAO).

Culture

■ The Director-General appoints a specialist as his personal representative to report on changes in the Holy City of Jerusalem since 1968.
■ A seminar held in Belgrade lays the foundations of a programme of intercultural studies which focuses largely on the interaction between cultures and completes the traditional regional cultural studies which have long been a feature of UNESCO's work.

Ornate façades adorn the historic centre of St. Petersburg, one of the sites on the World Heritage List.

The logo of the International Geological Correlation Programme.

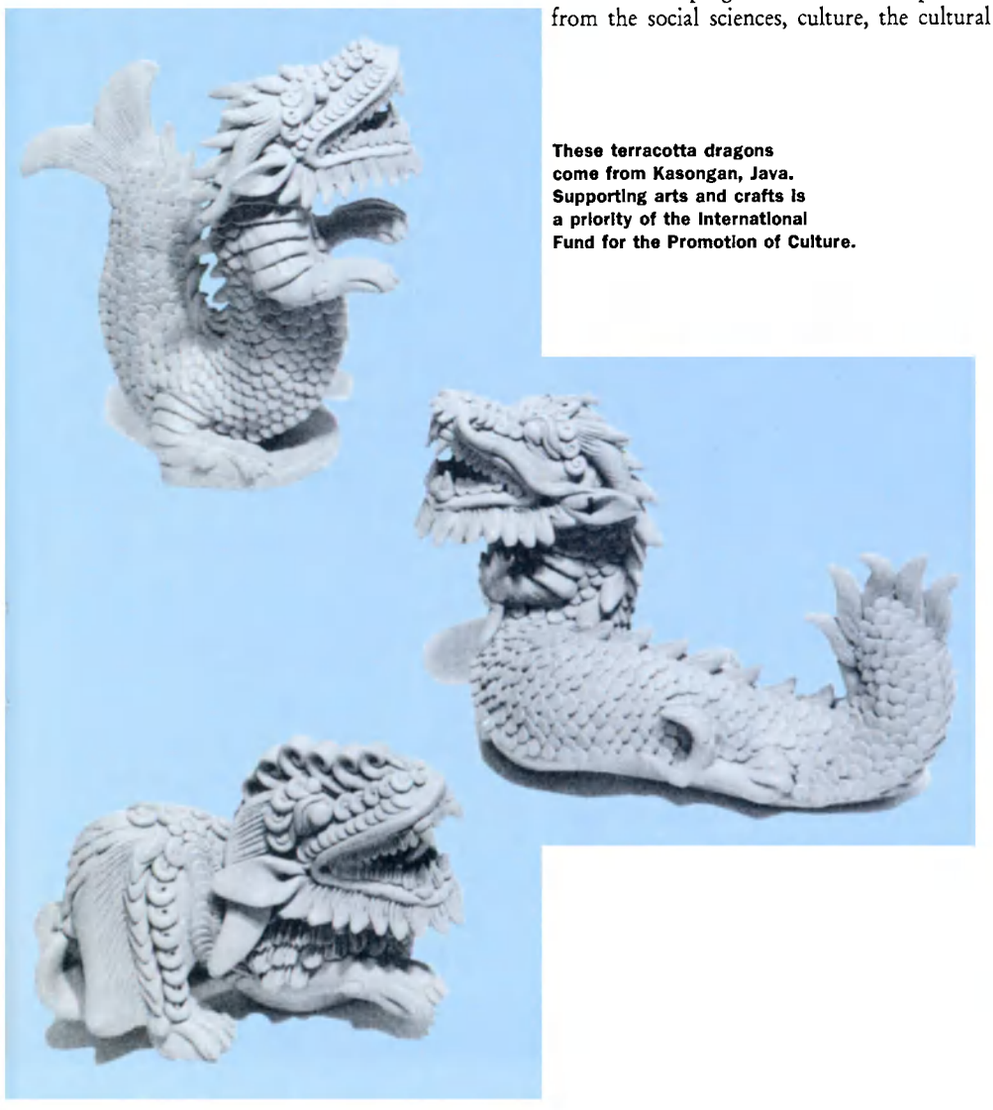
1974

General policy

■ Amadou-Mahtar M'Bow (Senegal) is elected Director-General.
■ The General Conference grants observer status to the Palestine Liberation Organization (PLO) and to African liberation movements recognized by the Organization of African Unity (OAU).
■ The General Conference condemns Israel on the Jerusalem question.
■ The refusal of the General Conference to include Israel in the European region of UNESCO leads the United States to suspend payment of its contribution. This situation comes to an end in 1977 when the arrears are paid.

Social sciences

■ The General Conference adopts the Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms, and also the Revised Recommendation concerning Technical and Vocational Education.
■ An interdisciplinary programme on "Man and his environment—the Human Habitat" is launched. This programme includes components from the social sciences, culture, the cultural heritage, and architecture (the history and evolution of architectural forms in different cultural regions, their influence on modern building, etc.)



These terracotta dragons come from Kasongan, Java. Supporting arts and crafts is a priority of the International Fund for the Promotion of Culture.

Amadou-Mahtar M'Bow (Senegal), Director-General of UNESCO from 1974 to 1987.

Culture

■ An International Fund for the Promotion of Culture is created, with the aim of promoting cultural values, aiding artistic creation and regional and international cultural co-operation. So far almost 400 projects have been carried out in 92 Member States for a global total approaching $3.5 million, financed by voluntary contributions.
■ The General Conference authorizes a study programme on Arctic cultures.

Communication

■ The notion of the "right to communicate", formulated in 1969 by Jean d'Arcy, is studied in UNESCO's programmes. The importance of this right is largely based on its capacity to condition the exercise of many individual rights already established (rights of meeting and association, the right to belong to a trade union, etc.) and on progress in communications technology.

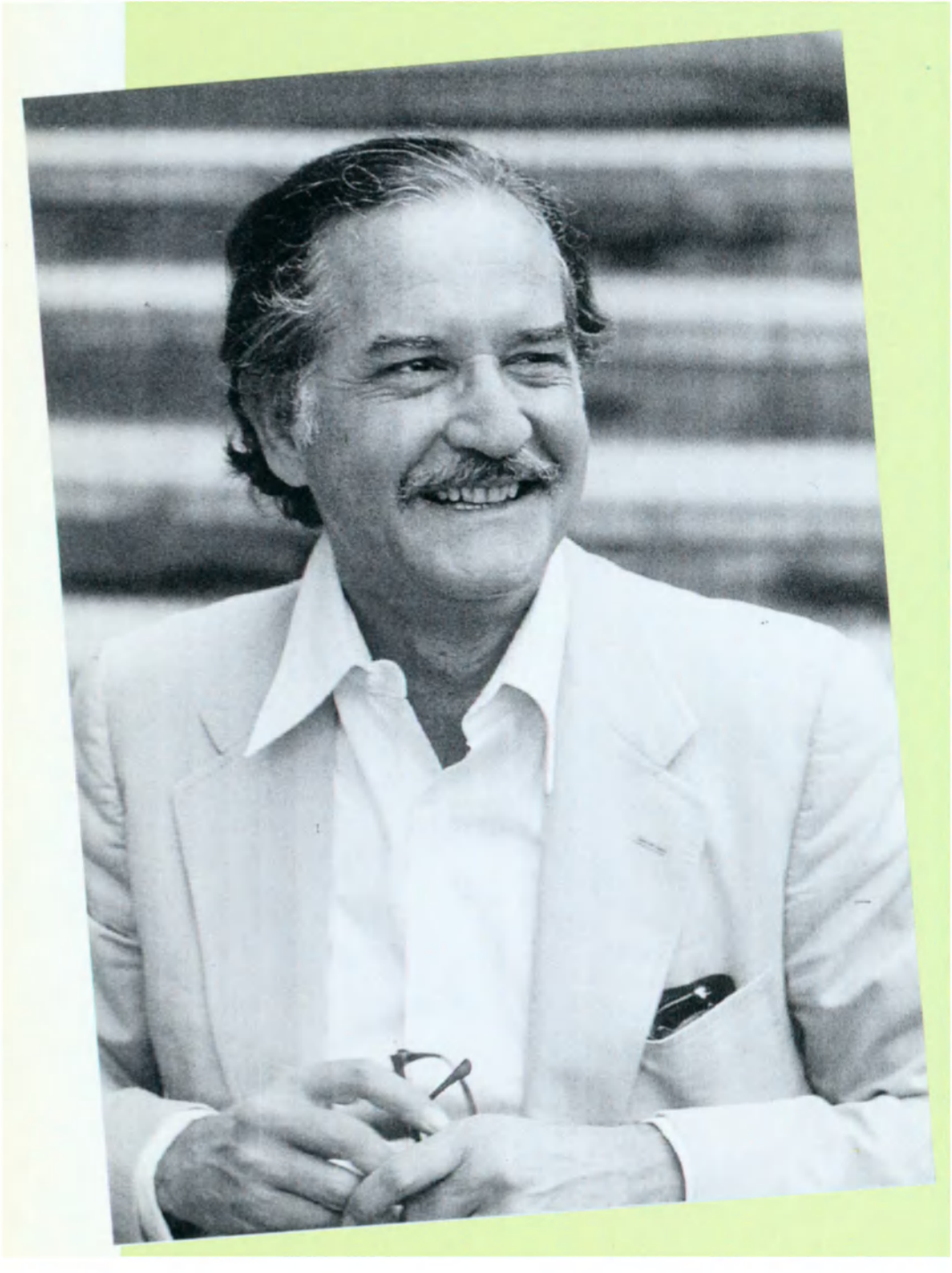
Events

■ His Holiness Pope Paul VI awards the John XXIII Peace Prize to UNESCO.

TO BE CONTINUED

CARLOS FUENTES

talks to Fernando Ainsa



The Mexican writer Carlos Fuentes is one of the leading figures in contemporary Latin American literature. In his novels and short stories, pre-Hispanic myths mingle with recent history to define the Mexican identity. One theme of his work, especially topical in a year which marks the 500th anniversary of the meeting of the Old World and the New, is the complex relationship between his country and Spain.

■ *In a premonitory article published in 1982, you speculated as to whether Europe and Latin America could unite their efforts to escape the double hegemony which then split the world in two. It was a question of inventing a "multipolar" world in which no one would be anyone else's satellite and in which each one of us could contribute to the shaping of a polycultural, multiform, civilizing ethos.*

— In the 1950s, while we were still students, the people of my generation felt that we were trapped, useless and sterile, between two blocs, two superpowers, two mutually exclusive ideologies. Each demanded total loyalty, sacrificing the diversity and multiplicity of all those countries and cultures that refused to make an unqualified choice between communism and capitalism, between the Soviet Union and the United States.

The cold war was no joke in Latin America. In the name of the conflicting ideologies and in face of the attitudes of the two powers, many political and cultural opportunities were lost. The first visible manifestation of the Cold War in Latin America was the foreign intervention in Guatemala in 1954. You will recall that Guatemala had just had two successive democratically elected governments—those of Arevalo and Arbenz. That experiment was brusquely brought to an end, to be followed by thirty years of genocide, repression and of democracy spurned. Many other countries experienced similar dramas, not to mention those that were subject to various kinds of pressures or in which dictatorial régimes were shored up.

The end of the cold war left not only Latin America, but also Africa and Asia, in an enormous political and even worse cultural mess. The Third World had not been given the chance to make its voice heard or to contribute to a world richer than that of the "either or" choice between Moscow and Washington.

This is why the emergence of "multipolarity"—which many Mexicans of

We have to defend and cultivate life and the values that make it worthwhile—art and love, solidarity and culture.

my generation had been seeking for nearly forty years—was a cause for rejoicing, even if our joy was muted. We have just witnessed the collapse of political theories and economic systems that never had much to do with our real problems, but we are well aware that the transition from bipolar manichaeism to pluralism will not be easy. After the euphoria of the fall of the Berlin wall and of the rigid communist dictatorships of eastern Europe, we are beginning to appreciate the scale of the perils that threaten us and of the obstacles blocking the passage from bipolarity to multipolarity.

■ *Are we not now seeing a resurgence of ethnic nationalism and of self-assertiveness by minorities rather than the emergence of a multipolar world?*

— I never expected the birth of the multipolar world to be anything other than difficult. It was always going to be hard to impose cultural diversity as a value capable of bringing new political realities into being. Basically, we are all hunched over the blank pages of the twenty-first century wondering fearfully whether there has really been a twentieth century rather than an unnatural prolongation of the nineteenth century, with its ideological conflicts, its exaggerated nationalisms and its illusions of progress.

The twentieth century believed in the promise of human perfectibility through progress and through absolute liberty, including the liberty to do evil. It has been a century of scientific enlightenment and of political gloom, of the universal reign of technology, but also of violence and ideological crisis.

■ *Was this a crisis of ideologies or rather of a certain conception of the State?*

— To my mind the concept of the Nation-State, which has dominated the world of politics since 1917, is being seriously questioned. In Latin America, we have the enormous advantage that nation and culture coincide, which is far from being the case in the Soviet Union, in Canada, in Ireland or even in France and Spain, where there is a certain mismatch between the idea of the nation and its cultural expression.

In America, we have learned how to create a "polyculture" in each State, a multiracial society which may have problems of its own but which does not call into question the coexistence of several cultures within the same nation. Our American nations are founded upon racial mixing, and that rests on integration, not exclusion. Whenever we have been tempted to practice exclusion, we have failed; and each time we have practiced integration, we have been the richer for it. This is the fundamental logic of our cultural experience, which, ever since the sixteenth century, has been one of openness to external influences.

Our capacity for integration comes to us from our Iberian roots, from that peninsula where Christian, Muslim and Jewish cultures coexisted and which has experienced so many invasions and conquests. It is a remarkable coincidence that the very year, 1492, in which Spain's historic image as a nation of welcome was dimmed by the exclusion of the Jews and the conquest of the kingdom of Granada, was also that of the discovery of America. On 12 October 1492, the first contacts with pre-Columbian civilizations opened up the prospect of new intermixings of unexpected richness.

Without wishing to minimize the crimes committed against the indigenous populations, I believe that what ultimately prevailed was the tendency towards racial mixing and cultural interaction, so much so that nation and culture are now one and the same and mutually reinforce one another.

In Latin America, we have succeeded, after a fashion, in conceiving and creating a world in which values, far from being stifled by the clash of opposites, are given new life through lively communication and recognition of the multicultural reality. Values cannot be dissociated from the social context which gave rise to them. Respect for and knowledge and acceptance of these values imply respect for and knowledge and acceptance of what is "different", of those who are different, even if they appear to reject us. These "others", those who reject us, enrich and mould us by enabling us to be receptive to whatever is not "us". The moulding of one by the other, the transformation of our individual egos through contact with all that is alien and different, is part of the exciting challenge presented by the multipolar, ethnically-mixed world towards which we are inevitably heading.

■ *But did not bipolarity also provide a form of protection for many Third World countries, a situation that enabled them to maintain a presence on the world stage and to protect themselves from one great power by seeking support from the other? Today, especially in Latin America, there seems to be a sense of confusion at being thrown back on one's own resources in this way, even though some see the positive side of things and are pleased that the Third World can finally take responsibility for its own problems and attempt to solve them itself.*

— Yes indeed, but this applies not only to the Third World; the same could be said about the Soviet Union, for example, and even about the United States, both of which find themselves obliged to look more closely at their own internal problems instead of working out global strategies for others.

For our part, we Latin Americans must put our own house in order, or as they say back home, "scratch ourselves with our own fingers". We are the only ones who can resolve our problems. We must stop flagellating ourselves and casting ourselves as the eternal victims of history. I personally have no feeling of being a victim. I believe that we can, quite independently, affirm our personality in the political and economic fields just as we have already done in cultural matters.

I am in no way underestimating the problems connected with currencies, foreign

trade and debt, but it seems to me that there is a whole series of basic problems relating to agriculture, food provision and education that we can solve by ourselves. A country that cannot feed and educate itself from its own resources is in no condition to make the great leap forward we expect in the twenty-first century. The essential thing is to educate our people and, above all, to feed them.

We have been victims of a gigantic misunderstanding. We thought that the industries of the nineteenth century with their factories and smoke-stacks were an earnest of prosperity and the path to progress. All that has been made obsolete by the rise of the automated, high-tech, services economy, while we, at least in some countries, are still trying to construct vast industrial complexes belching out smoke and soot.

We must begin by tackling local problems—building that first school, first hospital, first road—and proceed modestly, patiently, step by step.

We cannot go on fooling ourselves, telling ourselves that solutions will come from outside. If we do, we shall fail, as happened at the end of the nineteenth century, when we opted for a liberal solution based exclusively on foreign trade. The result was that a minority got rich with no benefit for the majority. Here and there, the democratic efforts of clear-thinking politicians, such as José Batlle y Ordoñez, in Uruguay, and Lázaro Cárdenas, in Mexico, helped to clean up the economy and to bring about a partial redistribution of wealth. Almost everywhere else, however, the gap between the rich and the poor merely got wider. We must not fall back into the vicious circle of the errors of the past; and this is what is likely to happen if we do not get to the root of our own internal problems.

■ *Do you think that the process of reducing the contradictions and antagonisms in Latin America is at last getting under way?*
— We are seeing a radical change in the structures of our societies. We inherited centralized structures that in some cases went back to the pre-Columbian empires, survived the Conquest and lasted on into the republics. Today, however, I see developing a movement that comes from the grass roots and the margins of society and which is now overtaking the vertical structures and institutions of the past—the Church, the State and the Army. In other words, civil society is preparing to take charge of our history and of civil society as a whole. It is this society that creates and transmits culture. Culture is the strongest, most valid and most durable of our possessions, the one best able to withstand crises and which has remained intact throughout the present crisis.

In this sense, culture, as a response to life's problems, is alive and well in Latin America, from Mexico to Tierra del Fuego. By culture I mean a way of living, thinking, dreaming, struggling, loving, singing, dressing, furnishing and decorating the home, remembering. All this is very much alive and, in my view, has a positive role to play in the context of the multipolar world in which we shall henceforth be living.

■ *In welcoming the arrival of a multipolar world, are you no longer afraid of the "Balkanization" of Latin America?*
— The nations of our continent have their own internal logic and cultural continuity going for them. As I mentioned earlier, nation and culture coincide in all of them, even those countries with the ethnic diversity of Mexico, for example. That is because their cultures have managed to integrate the indigenous contribution or, in the case of Cuba, that of the Black world. This cultural pluralism, which exists in Mexico just as it does in Ecuador or Venezuela, means that there is little danger of the kind of separatist implosion to be seen in the Soviet Union, in Czechoslovakia or Yugoslavia. I do not think one can talk of "Balkanization" in our situation. It is just not a Latin American problem.

Our own form of "Balkanization" is of a different kind. It comes into play when it is a question of going beyond the concept of the nation to create supra-national regional groupings. This is an area in which we have failed.

We have had neither the imagination nor the political will to transform our common cultural ties into political union. The contrast between the cultural unity and the political and economic disunity of Latin America is disturbing, because it represents a failure, a void. We have been unable to achieve union because we have too often sought or imposed development models that bear little relationship to our cultural realities.

What is lacking is the will to bridge the gap between our continent's cultural cohesiveness and some form of political union and economic co-operation, and thus to transform our rich cultural affinities into an equally fertile political and economic unity.

Remember what José Martí said: "The country that only does business with one other country is headed for slavery." We have to open up contacts with everyone—with the United States, the European Community, the countries of the Pacific and amongst ourselves. We must develop integrated free-trade zones, as Argentina, Uruguay and Brazil have done with Mercosur. There is also the reactivation of the Andean Pact, the first steps towards a common market linking the United States, Canada and Mexico, and the Central American countries' attempts at union. Great opportunities for action exist both within and outside the region and for providing openings amongst ourselves and to the world.

■ *To turn to your work as a writer, your stories are strongly marked by the myths of Mexican history. While these myths have given the country its identity, is it not possible that their cultural weight may stand in the way of desirable progress and jeopardize the changes that society must inevitably make?*
— The myths are hardly obstacles to development, since once they have been transformed into literature they become ideal instruments for the essential task of reinventing the past. This is the task of the novelist, whereas that of the historian is to make a faithful reconstruction of it. The novelist takes it upon himself to reinvent in depth a world that must come alive again, for the future only exists if the past does also.

True myths are living things that evolve, contradict and jostle each other. Dynamic rather than inert, myths influence each other, and their contradictions reflect the contradictions of the real world.

My purpose has always been to bring the pre-Columbian myths into confrontation with the realities of contemporary Mexico. The past is alive, it is all around us. It is not just by chance that the remains of the Great Aztec temple were found midway between those two symbolic monuments of Mexico City, the Cathedral and the Presidential Palace. A whole culture, a whole way of life is present there and in the traces of sacrificial blood as well.

One cannot understand Mexico without

Scene from Mayan daily life, enamel on copper, by the contemporary artist López Rodezno.

knowing something of its past. This, no doubt, holds true for other countries. In the absence of myths, countries like Argentina, where indigenous cultures have had little influence, have found ways of inventing myths. In this area, a dialectical, open approach is necessary.

It is clear that the void of the past must be filled. We have to fill in the gaps, the yawning hiatuses in a history that has not been told, assimilated and handed down. In Latin America people have often sought to fill these gaps with dreams of utopia. In so doing, they are resorting to imagination to create the past, in order better to handle the present and the future. As UNESCO's Director-General, Federico Mayor, once put it: "We have to be capable of imagining the past if we are to be able to have a clear vision of the future."

■ *This year, 1992, we shall be celebrating the five-hundredth anniversary of the meeting of two worlds.*

— This will not be a matter for celebration, but for reflection, and we should avoid falling into the excesses of criticism or hyperbole to which summary consideration of this anniversary could lead us. The past should not be seen either as a succession of crimes or as a paradise lost. It has to be recognized that we and all that we have achieved over the past 500 years are the outcome of that brutal encounter. There was a clash of cultures, but the catastrophe of the Conquest gave birth to us Amerindians. In a sense we have jointly forged the culture that now unites us.

We are the product of intermixing and of the Spanish language that most of us speak. We come from a Catholic culture, but one impregnated with religious syncretism, rich in Indian and African influences, that cannot be understood stripped of its indigenous, and later Black, masks. As the Mexican poet Ramón López Velarde put it: "We bear the face of the Occident, tinged with the tint of Moor and Aztec", and, I would add, of Jew and African, Roman and Greek.

The indigenous culture of the Americas has not disappeared, any more than it has triumphed. Let us say that it has survived to become an integral part of what José Lezama Lima calls the "Counter-Conquest"—the Indian and African response to the European grip on America. The racial purity of the conquistadors lasted no longer than the first night of love between a Spaniard and an Indian woman. It is this intimate contact between men and women that distinguishes the Iberian conquest from other colonial régimes that did not experience ethnic mixing.

That is why there is no reason to lock our gaze on the initial disaster of the discovery and the Conquest, as some historians would have us do. Instead we should be asking questions about our identity, about who we are, and trying to come up with the answers.

We cannot turn our backs on the culture we have forged over 500 years without renouncing all cultural activity for the coming 500 years. That is why I think that 1992 should be less a year of celebration than of reflection on what we have been able to achieve, so that we can go forward rather than listen to the siren voices of extremism.

■ *A final question, what will happen after 1992?*

— The coming years will present great problems, some of them on a planetary scale (I am thinking of the environment), and others stemming from the clash of unfamiliar cultures and from the tide of migration (of manpower, of peoples) from South to North and from East to West. I am less concerned about confrontations between nations than about cultural problems arising from fear of what seems "alien".

I believe that the next millennium will fully justify the existence of UNESCO and of the world's other cultural organizations. It is within them that the great enigmas of knowledge may be resolved. Will we one day learn how to harmonize science, politics and moral values and to achieve this without exaggerated idealism or resort to criminal violence? Will we be able to break out of the vicious circle of illusion and disillusion, of progress and violence, and replace it by a more comprehensive view of humanity, one I am tempted to call "the tragic vision"?

Happiness and history rarely coincide. We must be wary, but not give up the fight altogether. We have to defend and cultivate life and the values that make it worthwhile—art and love, solidarity and culture. Just because we do not know if we shall succeed is no reason for not trying. ■

Mass Migration in Europe

An international conference on mass migration in Europe will be held in Vienna from 5 to 7 March 1992. Organized by the Institute for Advanced Studies, Vienna, the International Institute for Applied Systems Analysis in Laxenburg (Austria), and the Institute for Future Studies, Stockholm, the conference will examine the economic, social, historical, geographical and cultural aspects of mass migration in Europe and will include a number of scientific workshops. It will be attended by researchers, politicians, businessmen, writers and journalists from Europe and North America.

Ecotechnology on display

The first international exhibition of ecotechnology and the environment is being held at the Centre National des Industries et des Techniques, Paris, from 7 to 9 January 1992. Entitled Ecosite, the exhibition is divided into five sections: environmental strategies; clean technology; ecoproducts; ecological services and advice; and information sources relating to environmental, health and humanitarian activities.

Poor man's pyramids

Nine mini-pyramids containing human remains have been discovered in the vicinity of the Great Sphinx at Giza, Egypt. Prior to this discovery it was thought that pyramids were only used as tombs for pharaohs, high priests and other notables, but these are believed to have housed individuals of lower degree. Meanwhile, German archaeologists have announced the discovery of the first pyramid ever found in the Valley of the Kings, near Luxor in Upper Egypt. Inscriptions inside the pyramid, which was built about 1400 B.C., indicate that it was the tomb of Ba-Ran-Nefr, high priest of the god Amon.

Paris 4,500 B.C.

Three dug-out canoes carved from oak, one of them virtually intact, are amongst some remarkable relics discovered on a Paris building lot, which indicate that the site of Paris was inhabited 6,500 years ago. Other items unearthed include vases, decorated bottles, flint axes and a bow. The canoes, which measure between 3.45 and 5.35 metres long, are the oldest boats ever discovered in Europe. At present, they are being kept immersed in water in specially installed tanks to preserve them from rotting.

Chinese herb to fight malaria

Heralded as a major new weapon in the fight against malaria, the drug *arteether* is undergoing its first human clinical trials in the Netherlands as part of a UNDP/World Bank/WHO programme for research and training in tropical diseases. *Arteether* is a derivative of *artemisinin*, or qinghaosu, the active constituent of the qinghao plant (*Artemisia annua*), which has been used for over 2,000 years in Chinese traditional medicine to treat chills and fevers associated with malaria. The properties of the qinghao plant were rediscovered in the 1960s, when the Chinese authorities ordered a systematic examination of indigenous plants used in traditional remedies. In 1972, Chinese scientists were able to isolate the plant's active constituent.

Poet and Planet

The International Astronomical Union has officially decreed that planet number 4635 is to be named after the French poet Arthur Rimbaud (1854-1891). Planet 4635 was discovered in January 1988 by an astronomer working at the Haute Provence observatory in France.

Pollution control creates jobs

Efforts to protect the Earth's deteriorating environment have created millions of new jobs and will create even more in the coming decade, according to a new study by the Worldwatch Institute, based in Washington, D.C. "Less damaging ways of producing, consuming, and disposing of goods are fully consistent with the goal of full employment because they tend to be far more labour-intensive", writes Michael Renner, author of *Jobs in a Sustainable Economy* (Worldwatch Paper 104). The report points out that pollution control has become a major industry on which the ten largest market economies spent more than $170 billion in 1989, creating some five million jobs. Recycling has also emerged as an important means of job creation, and may already be a larger employer in the United States than coal mining. Twice as many people now work in aluminium recycling as in primary aluminium production. High unemployment stems from the same economic choices that cause industries to destroy the environment, the report says.

APPRECIATION

HAMPÂTÉ BÂ

THE GREAT CONCILIATOR

by Diélika Diallo

AMADOU Hampâté Bâ, the man who was known as the "living memory of Africa", was born into an aristocratic Peul family in Mali at the dawn of the twentieth century—he liked to say that he was "one of the eldest sons of the century"—and was a member of UNESCO's Executive Board between 1962 and 1970. He died on 15 May 1991 at Abidjan (Côte d'Ivoire).

Some people at UNESCO still cherish the memory of this warm-hearted, smiling man, who always wore a full-length embroidered garment and was addressed by many as "Papa". The saying with which he will always be associated, that "In Africa, when an old man dies, a library disappears"—has become so famous that it is sometimes quoted as an African proverb.

Perhaps few still remember the occasion on which it was uttered. It was in 1962, at a meeting at which the rescue of the great pharaonic monuments of Nubia, threatened by the waters of the Aswan High Dam, was being discussed. After expressing his pleasure that UNESCO was endeavouring to save artistic treasures of universal value, Amadou Hampâté Bâ explained that other monuments existed in Africa that were just as precious for the cultural heritage of mankind, but were unfortunately far more fragile and perishable. These monuments were the great repositories of ancestral African lore who were not being replaced and whose knowledge would probably die with them. "In sixty years," he said, "the Nubian stone monuments, even if waterlogged, will still be there, but our last great 'illiterate scholars' will have gone for ever, and their knowledge with them."

Throughout his time as a member of the Executive Board he pressed for the systematic collection of these oral teachings and for the rescue of African oral traditions, not only because of their cultural value but also because they enshrine a vast sum of historical, religious, philosophical, scientific and literary knowledge. He liked to quote this phrase by his philosophical master, the Sufi mystic Tierno Bokar: "Writing is one thing and knowledge is another. Writing is the photographing of knowledge, but it is not knowledge itself. Knowledge is a light which is within man. It is the heritage of all the ancestors knew and have transmitted to us as seed, just as the mature baobab is contained in its seed." Amadou Hampâté Bâ was one of those who made the greatest contribution, notably at UNESCO, to winning world-wide recognition for the cultures of Africa.

It is less well known that Amadou Hampâté Bâ often proved to be an outstanding conciliator on UNESCO's Executive Board. He would defuse tense situations by telling an apposite African story in which his audience could recognize themselves. He was capable of engineering a unanimous vote when a few moments before the divergence between different viewpoints had seemed insurmountable.

Willingness to hear and respect the other person's point of view, a desire to seek mutual understanding through dialogue, hatred of intolerance—these were the outstanding characteristics of Amadou Hampâté Bâ. He was a great African humanist, or rather, simply a great humanist, since he transcended frontiers: "When we are tuned in to the universal," he said, "we shall have earned the right to call ourselves human beings and be worthy of our place in the concert of nations."

Nothing in his early life seemed to earmark him for a role in international affairs. In childhood he received a traditional education, Islamic and African, Peul and Bambara. His automatic entry into French education at the age of twelve took him along a new path. Who knows where it would have led if, at a time when he was preparing to enter the William Ponty college of education on the island of Gorée (Senegal), his mother had not ordered him to go no further with his studies in French, "which had gone on quite long enough". He bowed to her wishes and refused to join the pupils who were leaving for Gorée, with the result that the colonial authorities sent him to distant Ouagadougou, where he occupied a junior post as a "temporary writer employed on a highly precarious basis." Nevertheless, he achieved advancement. By 1933 he was senior secretary at the town hall of Bamako and occasional interpreter to the Governor of French West Africa.

His career took a new turn in 1942 when he was appointed to a post at the French Institute of Black Africa where he worked with the founder of the Institute, Théodore Monod. Ever since he was a child, he had collected oral traditions wherever he had gone, but now he could do so to his heart's content as part of long-term ethnological, historical and linguistic research in the field. He published many articles and a longer study, *L'Empire peul du Macina*, a work entirely based on the oral tradition.

In 1951, Théodore Monod obtained for him a UNESCO scholarship which enabled him to spend a year in France, where he established firm friendships with scholars such as Marcel Griaule, Germaine Dieterlen and Louis Massignon, who specialized in African and Oriental studies. Subsequently, he returned to France each year and gave a series of lectures at the Sorbonne on Peul culture and civilization. With Germaine Dieterlen he published *Koumen* (1961), a major anthology of Peul initiatory stories.

In 1958, when Mali became independent, he founded the Institut des Sciences Humaines at Bamako. In 1960 he represented his country at UNESCO's General Conference and in 1962 was elected to UNESCO's Executive Board. In the same year he became Mali's ambassador to Côte d'Ivoire and remained in this post as long as his country, which had broken with Senegal when the Federation of Mali broke up, needed access to the sea via the port of Abidjan. Four years later he resigned to devote himself entirely to his mission as "a man of cultural and religious dialogue".

He began to publish a flow of works, saving from oblivion some of the finest examples of Peul oral literature including *Kaïdara, L'Eclat de la grande étoile, Petit Bodiel, Njeddo Dewal, mère de la calamité,* and *La Poignée de poussière (contes et récits du Mali).* In 1974 he was awarded the Grand Prix Littéraire d'Afrique Noire for his most famous work, *L'Etrange destin de Wangrin.* He also catalogued his vast collection of manuscripts, the outcome of half a century's research into African oral traditions. When they have been reproduced on microfiche and a number of works relating to them have been published, they will be made available for consultation by researchers at libraries in Paris and in Africa.

The death of Amadou Hampâté Bâ is a great loss for the world of African culture and for all those who knew and loved the man. However, his ideas live on in his works and, remarkably, in his memoirs, the first volume of which, recently published under the title *Amkoullel l'enfant peul* (Actes-Sud, Paris, 1991) is a unique account of colonial Africa at the beginning of this century as seen through the eyes of a child. ■

DIÉLIKA DIALLO
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The demographic dimension

by Raúl Urzúa

Now 5.4 billion, world population will probably double before it stabilizes

UNDER the guidance of its first Director-General, Julian Huxley, the 1948 General Conference of UNESCO highlighted three major groups of problems facing the postwar world—nationalism, obstacles on the path of technological advance and population growth. The gravity of "the problem of world population" led Huxley to the view, expressed in "The Report of the Director-General on the Activities of the Organization in 1948", that "somehow or other, population must be balanced against resources, or civilization will perish".

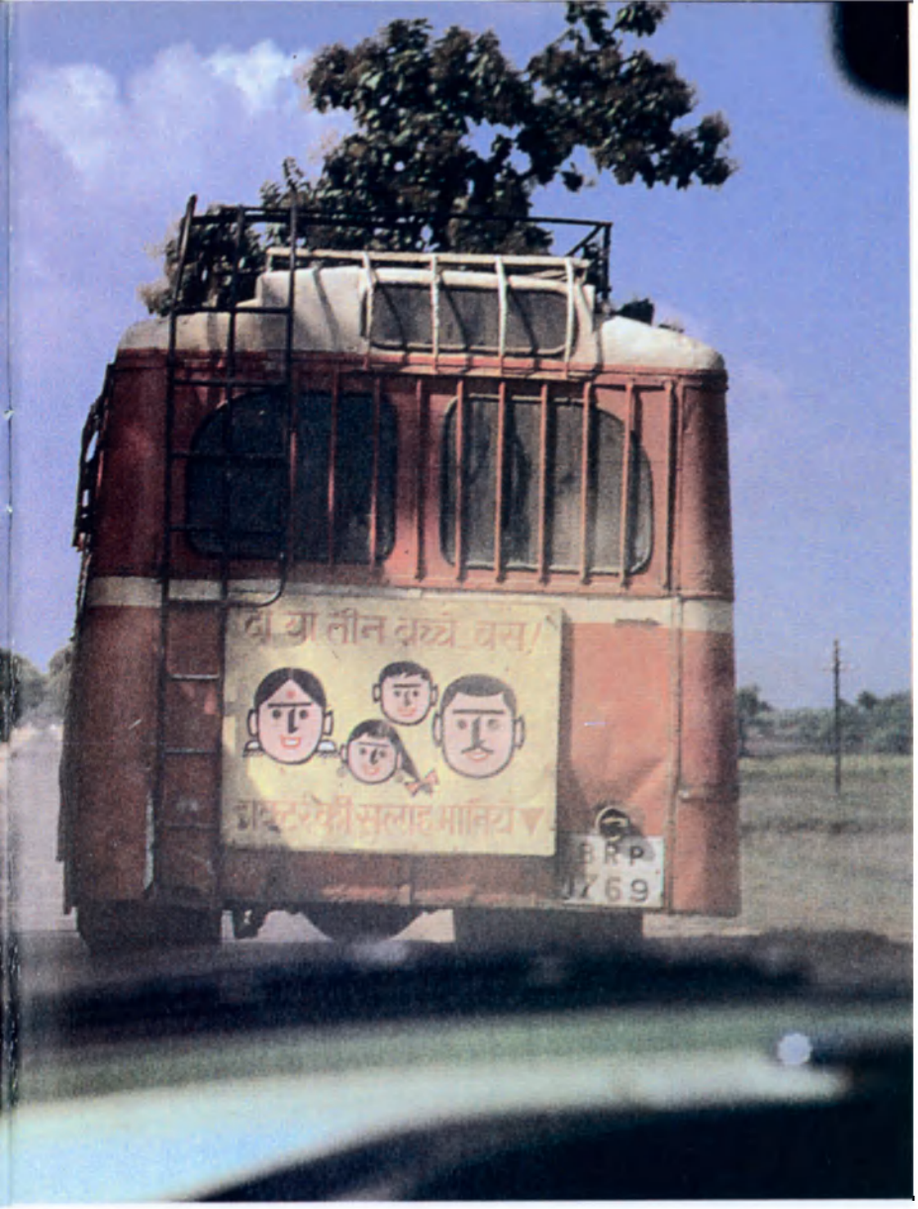
In the same report, Huxley noted with alarm that world population had already reached 2 billion and that the 3 billion mark would certainly be topped early in the twenty-first century. This turned out to be a very optimistic forecast. The world today has a population of 5.4 billion and recent United Nations projections indicate that by 2025 it will have reached 8.5 billion, almost three times the figure forecast by Huxley, and that demographic growth will not be halted until the twenty-second century, when world population will stabilize at around 11.6 billion.

The very magnitude of these figures puts population growth into the category of what the National Research Council of the United States recently described as "self-evident problems, such as crime, sickness, illiteracy, hunger and poverty, which must be resolved by means of appropriate social policies". Since then, better knowledge of the relationships that exist between demographic, economic, social, political and cultural factors has undermined some of our old certainties without providing others to replace them.

Few today would venture to suggest that a slowing of the rate of demographic growth would of itself be enough to ensure a rapid improvement in the standard of living of the world's most impoverished classes. Nor would those who are not unduly alarmed by present demographic changes go so far as to deny that lower population growth rates and a more even distribution of populations would make it easier to combat underdevelopment and poverty and environmental problems arising from excessive population pressure. What, then, are the most effective forms of action we can take to correct present demographic trends?

Possible scenarios

The World Population Conference, held in Bucharest in 1974, was the scene of a clash between two contradictory theories as to how to reduce population growth. The first of these, which received the backing of a majority of the developing countries, has been summed up in the catchphrase "development is the best contraceptive". According to its supporters, an improvement in the standard of living, coupled with educational advances, would inevitably lead to a better acceptance of, and demand for, means of birth control.



Placards on the back of Indian buses advertise the benefits of the two-child family. India was one of the first developing countries to sponsor birth-control information campaigns.

The opposing viewpoint, described as "neo-Malthusian" by its detractors, despite the fact that it diverged considerably from the theories of Malthus, was based on the principle that a reduction in the rate of population growth, achieved by means of a reduction in fertility, was a prerequisite and not a consequence of development. Supporters of this theory therefore advised the organization of huge campaigns for the spread of information and the distribution of contraceptives.

The World Population Plan of Action, approved at the Bucharest Conference, adopted a less dogmatic tone and succeeded in taking some of the initial virulence out of the debate. Nevertheless, ten years later, at the International Conference on Population, held in Mexico, in August 1984, to assess the working and results of the Plan, this debate re-emerged, but in a very different political and ideological context. Dressed up in neo-liberal guise, the "development first" argument received the support of the United States, whereas, this time, the developing countries were calling for vigorous family-planning programmes.

The defenders of the neo-liberal standpoint maintained that a development model based on free, individual initiative, with the market as the principal regulator of the economy, was the only mechanism capable of ensuring lasting development and of creating the necessary conditions under which couples would, in their own interest, come to modify their perception of the family and themselves choose to have fewer children better spaced out. This transformation of the scale of values and of family preferences would generate a demand for contraceptives which the market could itself meet with only marginal assistance from the State.

The principle of non-intervention by the State applied also to the question of internal migrations—any interference by the public authorities would be likely not only to infringe individual liberties, but also to distort the workings of the market in goods and services and this in the end would aggravate the very social and community problems such interference was designed to resolve.

Although to do so was in contradiction with the principles they stood by, for political reasons, the governments and many of the theoreticians supporting this view treated international migration as a separate case, as though in this field the laws of supply and demand did not apply.

The argument of those who favoured family-planning programmes seemed to find some justification in the rapidity of the demographic transition (see box page 17) in Latin America and in certain Asian countries, which appeared to contradict the notion that a reduction in birth rates is conditional on structural change and to entail acceptance of the view that the fall in the birth rate is due, at least in part, to an evolution in the understanding of and the aspirations, attitudes and values relating to procreation.

On this basis, some have sought to draw the conclusion that a vigorous family-planning programme could act as a brake on fertility without the need to introduce major social and economic reforms. At this stage in the debate, such a conclusion seems premature. Comparative historical studies that have been made on the demographic transition have shown that whilst too much emphasis may perhaps have been placed on structural factors as the prerequisite of a reduction in the birth rate, their importance cannot be entirely denied.

Learning from experience

Social and demographic indicators concerning all countries were recently published in "The State of World Population, 1991", the annual report of the United Nations Population Fund. They reveal that:

- the highest rates of population growth are to be found in the poorest countries;
- there are, however, some exceptions; in some countries the population growth rate is lower than might have been expected in view of the level of the per capita Gross National Product;
- the reverse is true in other countries where,

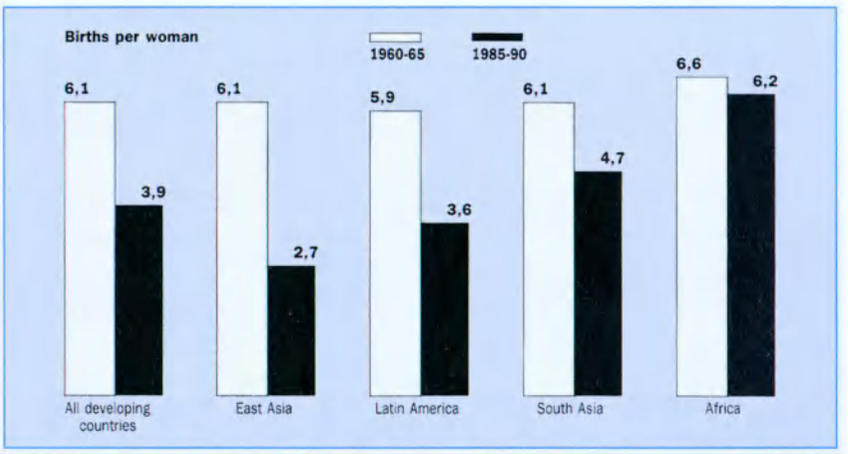
although the economic indicators, comparatively speaking, are not so low, population growth rates are high;

• whether or not there is an official population policy, the percentage of women making use of family-planning services is, almost without exception, higher in the more developed countries.

Given these facts, it might well be asked whether there is any means by which population growth rates can be significantly reduced. United Nations projections according to which world population will stabilize around the middle of the twenty-second century, at about 11.6 billion, are based on the supposition that there will be a diminution in the overall fertility rate in the developing countries, which will reduce from 3.8 to 3.3 births per woman by the year 2000. For this to occur, the percentage regular use of contraceptives in these countries would have to rise from the present 51 per cent to 59 per cent. In absolute figures, this would mean that, within a period of nine years, 186 million women would have to be persuaded to make regular use of contraceptives.

Experience over recent years indicates that it is extremely difficult to achieve a rise of these proportions in the regular use of family-planning methods. With the exception of Latin America (excluding central America), the Caribbean, east and southeast Asia, the other regions, which are those that contribute most to world population growth, would have to achieve a reduction of at least 1.1 in the average number of births per woman; in Africa south of the Sahara the average would have to be reduced by more than half (from 6.8 births per woman to 3.3).

Although they have been prime recipients of international aid over recent years, the poorest countries still have high fertility rates. Judging



Fertility trends in the developing world, by region (Source: United Nations, 1990).

by results, the efforts made to stem the rising demographic tide through campaigns for the distribution of contraceptives, coupled with information, education, communication and family-planning programmes, have clearly not been very effective. This relative failure casts considerable doubt on the theory that dissociated demographic evolution from economic progress and leads us to ask what other options are open to us.

In theory, there are three such options. The first is to establish an obligatory maximum limit to the number of children per family. This, however, would be contrary to paragraph 29 of the World Population Plan of Action, which recommended that all countries "respect and ensure, regardless of their overall demographic goals, the right of persons to determine, in a free, informed and responsible manner, the number and spacing of their children".

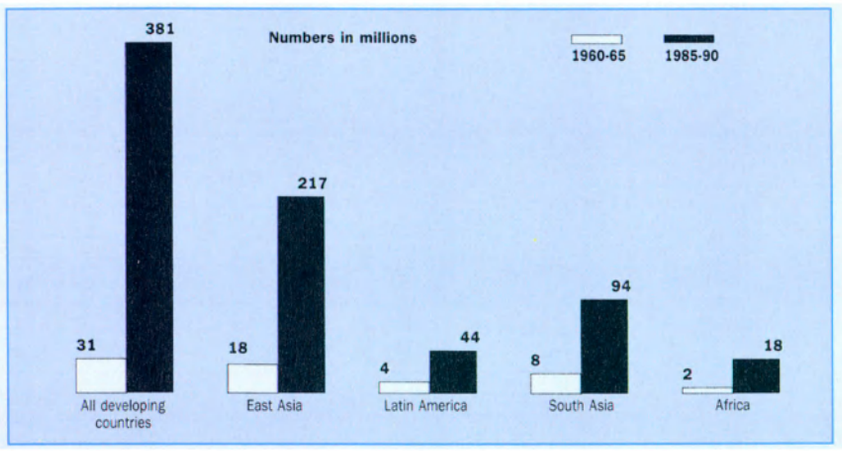
The second option is to rely on "the magic of the market economy" in the hope that it will quickly rescue the poorest countries from the abyss of underdevelopment, change family attitudes concerning numbers of children and encourage the public and private sectors to respond more effectively to the demand for contraceptives. It is questionable whether such faith in the market economy is justified, at least as far as the poorest countries are concerned—their market mechanisms are weak and they are in competition with the industrialized countries which firmly protect their internal markets and erect trade barriers against the importation of products from the developing countries.

The third option, put forward primarily by economists and social science experts of the developing countries, is also supported by the regional institutions of the United Nations as well as by a number of eminent specialists of the developed countries. It proposes that the newly-developing international division of labour be so oriented as to favour more equitable trading between the developed and the developing countries whilst enabling national economies to give priority to the elimination of extreme poverty and to raise the level of well-being of the general public.

This third option, sometimes referred to as "equitable development", involves raising

NAMIBIANS NEED...
BETTER HOUSING
IMPROVED COMMUNICATION
BETTER CARE FOR MOTHERS & CHILDREN
LITERACY & EDUCATION
INCREASED POWER & WATER SUPPLY
MORE JOBS
AND MORE
POPULATION & HOUSING CENSUS NAMIBIA 1991
MAKE SURE YOU ARE COUNTED
ASSIST THE GOVERNMENT IN PLANNING THE FUTURE OF NAMIBIA PARTICIPATE IN THE CENSUS

Poster advertising Namibia's 1991 census, carried out with the aid of the United Nations Population Fund. Lack of reliable demographic data is making it difficult to draw up Namibia's first national development plan, due to come into effect in 1993.



Trends in the number of contraceptive users, by region (Source: United Nations, 1990).

governments' social policies—education, public health, housing and employment—from their present secondary role and placing them on at least an equal footing with strictly economic policies aimed first and foremost at growth. Among these policies, demographic policies concerning population growth rates and distribution should be given priority if population pressures are not to become an obstacle to the fight against poverty.

Action along these lines seems to offer the best chance of achieving the goal of preventing the pressures of population growth and distribution fuelling even more alarming trends than those forecast by the United Nations. This will only be possible if the developed countries, which hold the reins of world economic power, are prepared to accept that demographic and environmental problems will not be resolved so long as long-term objectives are sacrificed to the benefit of short-term interests. Furthermore, the experience of recent decades demonstrates that, in the struggle for justice and against poverty and social inequality, a necessary prerequisite is a major effort to establish, consolidate and extend democracy.

Whether we like it or not, the probability is that the world population will double before it becomes stabilized. Resolution of the problems that this entails and preventing them from growing to unforeseeable proportions is not a question of means but of political will. The current upheaval of the world political scene provides an opportunity, perhaps unique, to give a new momentum to efforts by the international community to increase the well-being of ordinary people everywhere. ■

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The demographic transition

by Jacques Véron

IN 1934, the French politician and polymath Adolphe Landry formulated a new concept relating to population change which he termed "the demographic revolution". This concept was later taken up and given wider currency by demographers at Princeton University, under the new label of "the demographic transition".

The concept can be summed up as follows: Economic advance (or development) upsets the initial equilibrium between the mortality rate and the birth rate within a given population, but this equilibrium will eventually be automatically restored by the interplay of internal mechanisms.

Before the rapid advances in medicine and public health that have been made over the past century, today's industrialized countries experienced high birth and mortality rates and, as a consequence, their demographic growth rate was low. As medicine and public health improved, this equilibrium was temporarily broken; the mortality rate fell, but the birth rate remained unaffected. As a result, these countries (with high birth rates and low mortality rates) went through a period of rapid population increase. Finally, the fall in mortality rates was "absorbed" and birth rates fell until a new equilibrium (low mortality and birth rates) was established. The birth rate seems in some way to react to the fall in the mortality rate, but only after a certain time-lag.

It is worth taking a closer look at the logic of this model. Within a given society, vaccination campaigns and advances in public health come as an impact from the exterior. The mortality rate is affected immediately, since some of these medical advances have a major effect on one of its essential components, infant mortality. The society, however, is accustomed to a high rate of infant mortality for which it compensates by a high birth rate. To counter the risk of losing children in infancy, parents have more children; and the birth rate will not be modified (intermediate period of disequilibrium) until parents are fully conscious of the change that has occurred in the mortality rate. Gradually, however, the change in the mortality rate is perceived and registered by parents, who will then tend to have fewer children. At the same time, in a society that was originally rural, but which is tending to become urban, the status, role and utility (in terms of work) of children is no longer the same.

The demographic transition model is based on observation of demographic change throughout history in today's developed countries in which the fall in mortality rates was followed by a drop in birth rates, by urbanization, industrialization and improvement in education. Were these changes really linked and, if so, how? Can there really be said to be an automatic mechanism that restores the demographic balance?

If the demographic equilibrium will automatically be re-established, then there is no need for concern about the rapid population growth occurring in many Third World countries. The very high population growth rates in Kenya and Bangladesh, for example, may simply mean that these countries are passing through the intermediate stage of disequilibrium. But can there be an automatic readjustment when the intermediate dislocation is very intense? Excessively rapid population growth raises acute problems concerning education and employment. There is a danger that there will be no fall in the birth rate, since the sociocultural changes required to bring the automatic adaptation mechanism into play will not occur.

If it is accepted that the demographic transition theory may be faulty, then this implies that political action through population policies may be necessary and that population control programmes should be implemented. This view takes the debate out of the scientific field and places it in the realm of politics, and attention is then focused on the persistence of high birth rates as an argument for interventionist policies. ■

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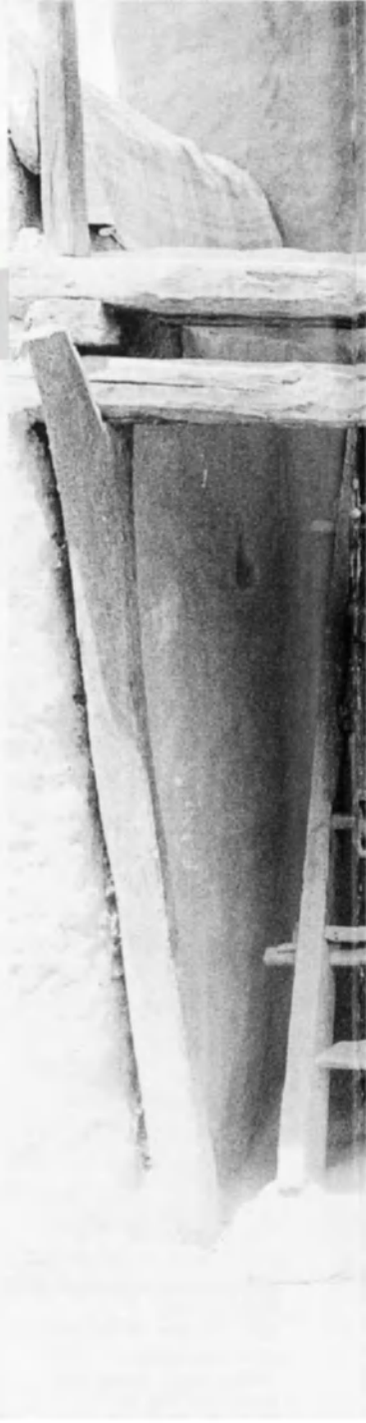
Poverty, population, pollution

by Nafis Sadik



One person in five lives in absolute poverty

THE elimination of poverty is first and foremost a moral imperative; but it is also essential for the protection of the global environment and for the health of the global economy. On all these grounds, we can no longer tolerate a situation in which one in five human beings—a total of 1 billion people—lives in absolute poverty.

Protection of the environment is a requirement for ending poverty—a ruined and plundered resource base could not support our current and future numbers—and slower, more balanced population growth is both a precondition for, and an outcome of, finding solutions to the twin problems of the environment and poverty.

In the past, economic development was seen as the solution to poverty, and demographic transition (see box page 17) as the eventual solution to population growth. Some damage to the environment was accepted as a necessary, but only marginally important, cost of development. These assumptions are no longer justified.

In many cases development has not only failed to eliminate poverty but has actually increased it, with deadly effects on population growth and environmental damage. For when development efforts are ineffective, they disrupt existing social and economic systems without providing compensating benefits. Even when development is effective it vastly increases human sources of pollution and environmental destruction. The industrial technology in use in most of the world was developed without thought for its environmental effects.

An unwanted side-effect of incomplete development has been to encourage rapid population growth. Mortality has fallen and life expectancy has risen, but there has been much less effect on birth rates. Increasing income and improving child survival leads in the first place to larger families. Only when development programmes include a family-planning element does family size fall significantly.

Another unintended side-effect of incomplete development has been massive and sustained urban growth. Classic development theory relies on the city as the engine of economic growth and therefore encourages urbanization. However, no one foresaw rates of urban growth of between 4 and 7 per cent such as are being seen now in many developing countries where urban growth has spiralled beyond control.

The crisis is produced as much by numbers and concentrations as by technologies and structures. This is a peculiarly difficult dilemma. If

Several well-known musical duos have helped spread the family-planning message through their songs: below left, Nigeria's Onyeka Onwenu and King Sunny Adé; centre, Tatiana Palacios of Mexico and Johnny Lozana Correa of the Puerto Rican group "Menudo"; right, Lea Salonga from the Philippines and Charlie Masso, a former member of "Menudo".

The father of eight children, this Nepalese farmer volunteered for sterilization. He holds family-planning meetings and literacy courses for his family and neighbours at his home.

development is simply the replication of world experience to date, it condemns the environment, and therefore itself.

The keys to modern development

Education, health care and balanced population growth, with special attention to the status of women, are the keys to modern development. They also form a basis for the elimination of poverty and protection of the environment.

Developing countries' own resources of food and raw materials—and above all their human resources—are sufficient for balanced development, if they are exploited in a thoughtful way rather than for short-term gain. The aim of all who are committed to development must be to work towards the marriage of public policy with private interest and a full sense of community combined with respect for human rights and dignity.

There are many reasons why so many people are and remain so poor. One is the sheer scale of the problem; the poor are the fastest-growing segment of the population in any country and in the world as a whole. Another reason is that the poor are trapped in a vicious cycle where poverty, lack of education, lack of earning power, poor nutrition and poor health feed on each other. However the main reason for continuing, large-scale poverty is quite simple—the lack of a concerted will, nationally or internationally, to do something about it. Many promises have been made, but few have been kept. Many development theorists have pointed out that poverty can kill us all, but they have not been heeded. Ending poverty has simply not rated a high priority in most countries, whether industrialized or developing.

The poor themselves certainly have the will and the motivation to defeat their poverty. Anyone who has ever set foot in a slum, a poor village or a shanty-town knows what ingenuity, skill and effort go into the daily struggle to survive. We in government and the development business must learn not to get in the way. This is not the same as abdicating responsibility; consider how many ready-made anti-poverty programmes have come to grief because the poor were not involved in their design and execution; consider how many more have failed because they ran foul of some contradictory policy.

Consider in particular how women have been excluded and how their contribution to the

national and local economy and society has been undermined by schemes with the word "development" in their titles. The pattern is so consistent across continents and levels of development that it is difficult not to conclude that the intention was to exclude women from the new society and to keep them safely at home with the children.

Community involvement

Experience shows that the successful grass-roots development programmes are those which respond to national needs through local action and involve both men and women, rich and poor. For national policy to succeed, effective and appropriate services must be delivered locally and at the family level. Even more important, families and communities must be involved in the policy-making and management process.

There is considerable scepticism today about the ability of governments to deliver development services to the poor and even more about governments' ability to involve communities in decision-making, although in most countries this has scarcely been given a fair trial. Where governments are committed—as, for example, in Sri Lanka, or in Costa Rica—the experience has certainly been that services such as education, health care, family planning, agricultural extension and even housing can be delivered with community co-operation. Recent reports say that the State of Kerala, in India, has achieved universal literacy—largely through a combination of official and community action.

The other aspect of service delivery is, of course, self-help. The poor are almost completely self-reliant, because they have no one else to rely on. Considering what they achieve with so few resources, it should come as no surprise that they can do a great deal when resources are more plentiful. With small amounts of outside help and organization, shanty communities in Sri Lanka have made themselves the model for a national self-help housing programme. The Grameen Bank in Bangladesh is a famous example of success in extending credit to the poor.

Can successful community-based experience be transferred to productive areas of the economy, for example to industry or agricultural policy? A growing number of economists and other analysts of the development process now think so. If, for example, the supply of water for irrigation is controlled and paid for by user groups, the result is that less water is used and it is used more effectively.

The mix depends upon the country and the community. Flexibility is the key to a successful approach. Above all, understanding that improving services to the poor is an important development goal must be inculcated at all levels. The banking industry in Indonesia was very sceptical about making loans to women's groups, but it has been shown that with outside funding women's groups will both repay on time and make profitable investments. Commercial banks are now much more enthusiastic about such business.

If the global importance of small-scale development is to be recognized, the big organizations—inter-governmental groups, multilateral agencies, international policy-making institutions—must give it their seal of approval. It is very difficult for the very big to see the very small, but it is important for them to learn. There are too many examples of massive, internationally-funded development projects that

Brazilian street children learn a trade in a carpentry workshop.

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is Executive Director of the United Nations Population Fund (UNFPA), the world's largest source of multilateral assistance to population programmes. On her appointment, in 1987, she became the first woman to head a major voluntary-funded UN programme. A physician of Pakistani nationality, she is the author of many articles in the field of family planning and health, and has edited a book *Population: The UNFPA Experience* (New York University Press, 1984).

Health workers are taught about birth control methods as part of a family planning programme in Lahore (Pakistan).

have ended in expensive, environmentally dangerous and socially catastrophic failure.

A role for the United Nations

The United Nations system is being given more work to do in the post-cold war era. The system has already proved its value as a neutral forum for discussion of different approaches to development. It has proved its value as a channel for development assistance which is not tied to one ideology or approach. Greater resources are now needed so that the system can work towards a new international consensus on the shape of development.

Even more important, perhaps, than resources for the future effectiveness of the United Nations system will be a clearer sense of direction. The United Nations is an intergovernmental system and, in the end, governments decide how effective they want it to be. It is quite clear that the various parts of the system need better co-ordination. It is equally clear that our agencies and their mandates, their political direction and their management, are fragmented and need to be reviewed and revised so as to meet the needs of the next century. After three development decades, the best we can say—and it is a considerable boast—is that we have survived. We are supporting the largest number of humans ever to have inhabited the planet at one time. We have escaped nuclear war and we seem to have reassessed the risks of nuclear melt-down. The United Nations has not collapsed, blown apart or withered away. Some of our institutions are stronger than before and some of them have learned how to work effectively. There is international consensus on the need for action to protect the environment, even if there is disagreement as to what that action should be. There is a very strong and practical consensus on the need for slower, more balanced population growth worldwide.

There seems to be an even chance that the female half of the population will get its share of development investment in the future and be allowed to make a full contribution to development work. The international community may come to understand that enabling the poor to escape poverty may be the key to survival for the rest of us. ■

The environmental challenge

by Ronald Lee

How far can the world's ecosystem support continuing population growth?

RONALD LEE,
of the United States, is professor of demography and economics at the University of California at Berkeley. A past President of the Population Association of America, he has received the Mindel Shepps Award for outstanding research in mathematical demography and demographic methods. He has co-edited several books on population and economic development, including *Population and Economic Development: Issues and Evidence (Wisconsin, 1987)* and *Population, Food and Rural Development* (Oxford, 1988).

THE population of the world has multiplied by a factor of seven since 1750, tripled since 1900 and doubled since 1950. Its rate of growth accelerated throughout this century, peaking in the mid-1960s at 2.1 per cent per year and then declining to the current rate of 1.7 per cent per year. The rapid population growth since World War II, unprecedented in recorded history, caused grave concern and controversy about the ability of the global economy and ecology to sustain the increased numbers.

Classical economists like Thomas Malthus (1766-1834) believed that, as growing population made land increasingly scarce, rising food prices would eventually choke off further economic and demographic growth and that this would lead to what they termed the "stationary state". For them, natural resource constraints were at the heart of the problem. Yet while the classical economists stressed the central role of land in the economy, the importance of land has dwindled in the modern world. The share of the labour force in agriculture is declining in most areas and the possibilities for increasing the output from a given amount of land, through increased inputs of fertilizer, pesticides, new seed varieties, irrigation and better training, appear very great.

By the 1980s, policy-makers were in a state of confusion. Was population growth good or bad? Did it matter at all? Would expenditure on

family-planning programmes lead to more rapid economic development?

This uncertainty led to systematic attempts to assess our knowledge, including major projects by the World Bank and the United States National Academy of Sciences. In the mid-1980s, these assessments revealed a surprising degree of agreement among economists. While few of them accepted the view that population growth was good for development, the consensus was that it mattered less than had previously been thought. Earlier studies, it was believed, had failed to appreciate the flexibility of the economic system.

Sounding the alarm

While economists were playing down the effects of population growth, ecologists and environmentalists like Paul Ehrlich and Garrett Hardin were sounding the population alarm. They pointed out that the biosphere provided essential inputs to economic activity and warned that its limits and fragility placed bounds on sustainable levels of economic activity and that these bounds had already been overstepped. The global economy was consuming ecological capital with careless extravagance rather than living off the interest.

Ehrlich and Hardin had been expressing these views since the 1960s at least and their views were incorporated into a systems analysis model in the Club of Rome report "The Limits to Growth". This report, which attracted worldwide attention in the early 1970s, came to the conclusion that global collapse was imminent and inevitable unless fundamental changes were made and that catastrophe was inherent in the structure of socio-economic and ecological relationships.

Social scientists soon rejected the Club of Rome approach in favour of careful analysis of each relationship. In the 1980s, however, a flood of environmental problems added new urgency to the ecologists' position. Hot summers, drought, acid rain, polluted waters, famine and holes in the ozone layer seemed to confirm their predictions, leading to heightened concern about population growth.

Ecologists, however, had presented a broad array of reasons to end or reverse population growth; some of these were less solid than others. Many of the older ideas about the economic consequences of population growth were again put forward. These were unconvincing since they were not supported by the more recent research. Ecologists had also been issuing warnings about the impending exhaustion of minerals, but economists such as Julian Simon countered by showing that the real prices of most minerals had been falling historically, not rising, and that the total costs of natural resources had not been rising as a share of national output. Petroleum prices had also tended to fall, if increases caused by OPEC are excluded. In 1980, Simon wagered Ehrlich that mineral prices would decline in real terms during the following decade. In 1990 Simon won this well-publicized bet and collected his money. The historical record illustrates the substitution of more abundant resources for scarce ones in response to relative price changes. It exemplifies flexible economies responding to incentives communicated through market prices.

Some of the ecologists' other claims have also appeared to be premature or exaggerated. For example, real food prices have historically fallen and per capita food production has increased. The incidence of famines has diminished, not increased, and modern famines often arise from wars or mistaken policies rather than from deficiencies of agricultural production due to population growth.

"The tragedy of the commons"

Yet many of the ecologists' most important warnings appear correct, particularly those concerning renewable resources—air, water, fisheries, land, forest cover, the ozone layer and species diversity. These resources can sustain a certain level of use without diminution, but over-use leads to their damage or destruction. Furthermore, most of them lie outside the market

Opposite page, improved rice strains growing at the International Rice Research Institute (Philippines). High-yield, fast-growing hybrids that are resistant to disease have made a major contribution to Asia's "green revolution".
Below, destroying agricultural surpluses in France.

economy and may be used cost free. This means that economic agents—individuals or firms—can benefit from cheap disposal of pollutants without bearing the costs of environmental degradation, the costs being passed on to society as a whole. As a result, economic incentives encourage over-use. The automatic signalling mechanism of market prices is impotent and price changes serve neither as an incentive nor as a signal of increasing scarcity.

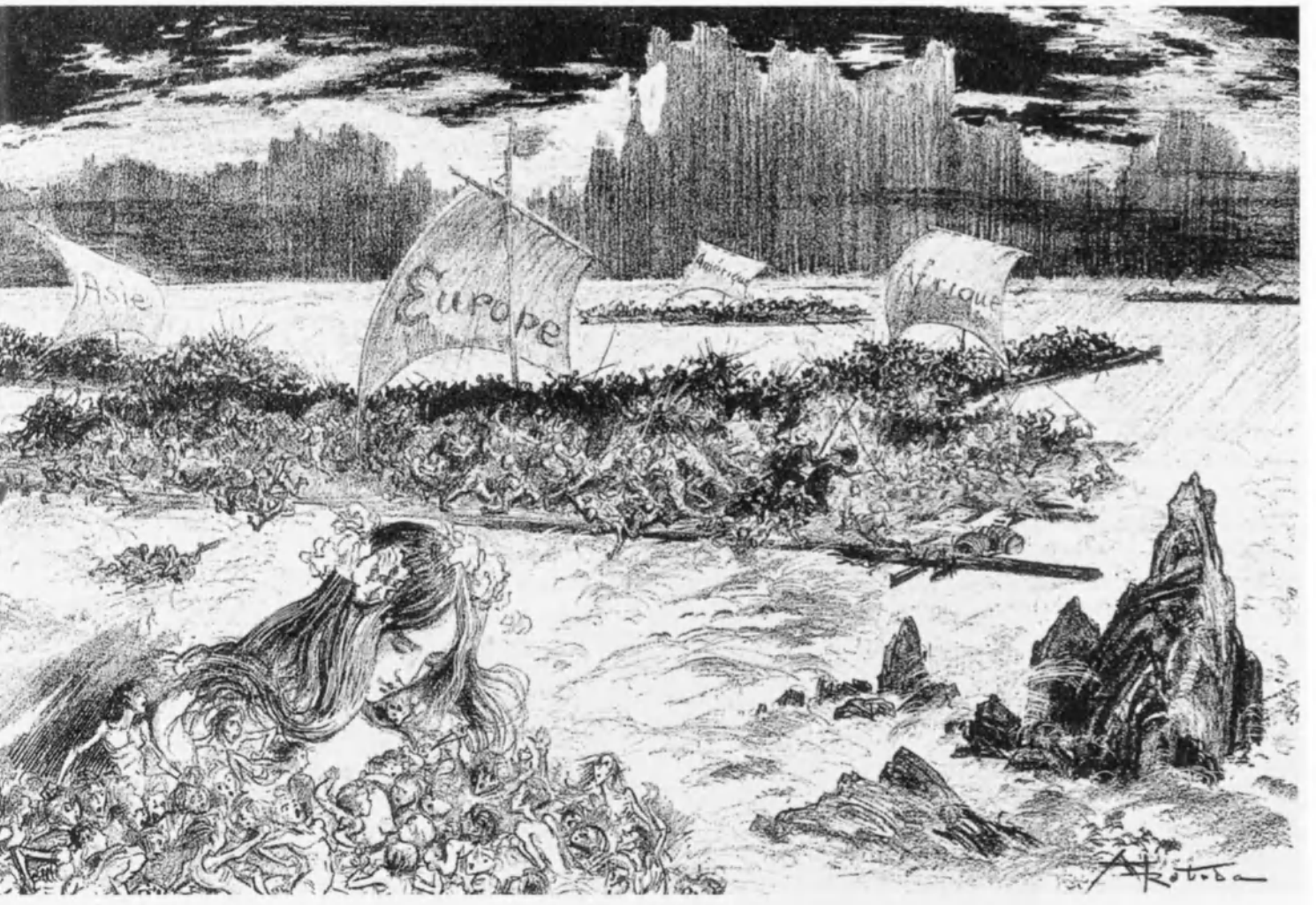
For some resources, such as forest cover, there is little incentive even for national policies, because the costs of policies are borne locally while the benefits are shared globally. Hardin called this type of problem "the tragedy of the commons", and the name has stuck. Although traditional communities with common property resources have typically managed them effectively, these arrangements are vulnerable to the forces of economic development. In any event, modern environmental problems transcend local communities, nations and even continents.

Damaging over-use of renewable resources is intensified by population growth. Although, in principle, over-use can be prevented by appropriate policies and institutional arrangements, in practice this has been difficult to achieve. The situation is complicated because population is only one of several contributory factors. Per capita income growth and changing technologies, for example, also play important roles, but in a given situation it is difficult to assess how much is due to their influence and how much is due to population growth. Nevertheless, whether renewable resources are well managed or not, population growth means that less of their services will be available to each individual.

Worries about population growth have thus come full circle—from the classical concern for limited land, to emphasis on physical capital, to more recent emphasis on human capital and the ameliorative influence of competitive markets and back once again to the natural constraints. This time, however, the concern is for renewable resources, most of which fall outside the market. For some, the urgency of population control on ecological grounds is obvious. Others remain sceptical. Research on links between population growth and the environment is under way, and there is hope for a better understanding of these links in coming years.

Because many of the ecological costs of population growth are global, the ecological incentives to restrain population for national gain may be weak. This is another tragedy of the commons, which can only be removed by international collaboration. ■

Sacks of seed are delivered to a group of Tuareg, to help combat desert advance in the Sahel.



The numbers crunch

by Harold Brookfield

Is it possible to measure the population 'carrying capacity' of our planet?

"Continents as crammed as the Raft of the Medusa", a drawing by the French artist A. Robida (1883).

WHEN we speak of "overpopulation" or of "underpopulation" the implication is that there must be some level of population in any region or country, or in the world as a whole, at which neither of these conditions exists and at which population is "optimal". When we say that the condition of either land or people is worse than it would be if there were fewer inhabitants, then there must be some "maximum" population, probably higher than the "optimal", beyond which stress becomes palpable. Underlying all this is the notion that our planet has a certain undefined, sustainable population "carrying capacity".

Most modern thinking relies on the different formulations of the problem by Malthus (1766-1834) and Ricardo (1772-1823). Malthus propounded the "law", or hypothesis, that population tends to increase to the level which just permits subsistence for the great majority. Ricardo modified the Malthusian theory by a more thorough development of the empirical law of diminishing returns as applied to successive units

of labour input, implying that limits are attained through rising scarcities.

Historically, it is certainly possible to find instances of something like the Malthusian law. In overwhelmingly rural early fourteenth-century Europe, every poor harvest resulted in an increase of deaths. In Ireland, in the 1840s, the ease of subsisting on potatoes led to rapid population growth among a peasantry constantly pressing on the limits of famine, across which they were thrust by crop failure in 1845.

In the mid-1960s, a group of researchers, concerned by demographic upsurge and evidence of stress in either society or resource management, or both, began to seek ways to quantify the critical population densities which mark the onset of stress conditions. All dealt with mainly self-sufficient agrarian societies using pre-industrial technology and with land-rotation farming in which the fallow period was a critical element.

The pioneer work was carried out in Africa where a system first developed in 1949 in Zambia by W. Allan, with the object of determining the need for land reallocation and rehabilitation, was later extended to societies in other tropical parts of the continent. Anthropologists and geographers used and elaborated formulae, similar to those Allan used to calculate critical population density, to quantify the productive capacity of an environment, the number of people it could support at given per capita requirements, and hence the degree of pressure on resources.

Criticism of the "carrying capacity" concept

Substantial criticism of the whole group of concepts embraced under the notions of "carrying capacity", "critical population levels" and "population pressure on resources" was, however, already building up. Increasingly it came to be understood that a static population-resource equation concealed more than it revealed.

Technical problems with early attempts to make carrying capacity an effective, applicable indicator were summarized in 1986 by P.M. Fearnside. They addressed only one class of agriculture and an essentially subsistence economy. Although some authors introduced caveats, they nevertheless calculated on the tacit assumption that patterns of consumption, income and employment, crop and livestock mix and agrotechnology were fixed. Few considered natural resource degradation or took account of year to year variability in the biophysical conditions of production. Most studies were based on limited periods of field research and there were deficiencies in the data used on yields, the fallow period and the qualities of land and its resilience under human use. Unfortunately, some of these deficiencies have been carried forward into more recent work.

The UNESCO/MAB Eastern Fiji project of 1974-1976, which the writer headed, was assigned the task of improving carrying capacity estimation. It was felt, not unreasonably, that islands would provide the best laboratory. Within the project, T.P. Bayliss-Smith took an important step away from the old approaches, including his own, by recognizing that the output obtained by people from any resource-area is not a fixed quantity, but is relative to the intensity of input. The Bayliss-Smith model is not specific to any particular cultivation system and is applicable to open as well as closed economies. It abandons the deterministic approach of the 1960s and creates the potential to take account of both natural and economic variability.

The price of progress towards realism was a greater need for data, more complex calculations and a result made up of choices rather than a single figure. The stage was set for a new computer-based methodological step forward. This was taken by P.M. Fearnside, who tackled the problem of carrying capacity in a very different environment from islands—that of clearings made by settlers in lowland rain forest along the trans-Amazon highway in Brazil.

In this rather specific case Fearnside used as his indicator the statistical probability of colonist failure under specific population densities. He determined this probability through a complex computer model which simulated the whole agro-system of the settlers, employing data collected over more than ten years to examine the causal relationships between over sixty variables rather than an independent condition of the environment. This was a far remove from the work of twenty years before.

Fearnside's method is very demanding of data, research time and computer time, but it approaches realism by turning the question away from the simple numbers that can be supported under a given and static set of conditions. Instead, it focuses on issues such as levels of support obtainable from environmental sources under varying conditions, or density limits on success among poor settlers in a new environment. It shifts away from determinism towards questions of sustainability, but in very specific contexts.

It would not, however, be reasonable to wait on such intensive enquiries in all situations and certainly not in the face of the large population, development and environmental problems that now confront much of the world. There is a need for answers to questions posed by another doubling of the global population and a desire to know the sustainable carrying capacity of

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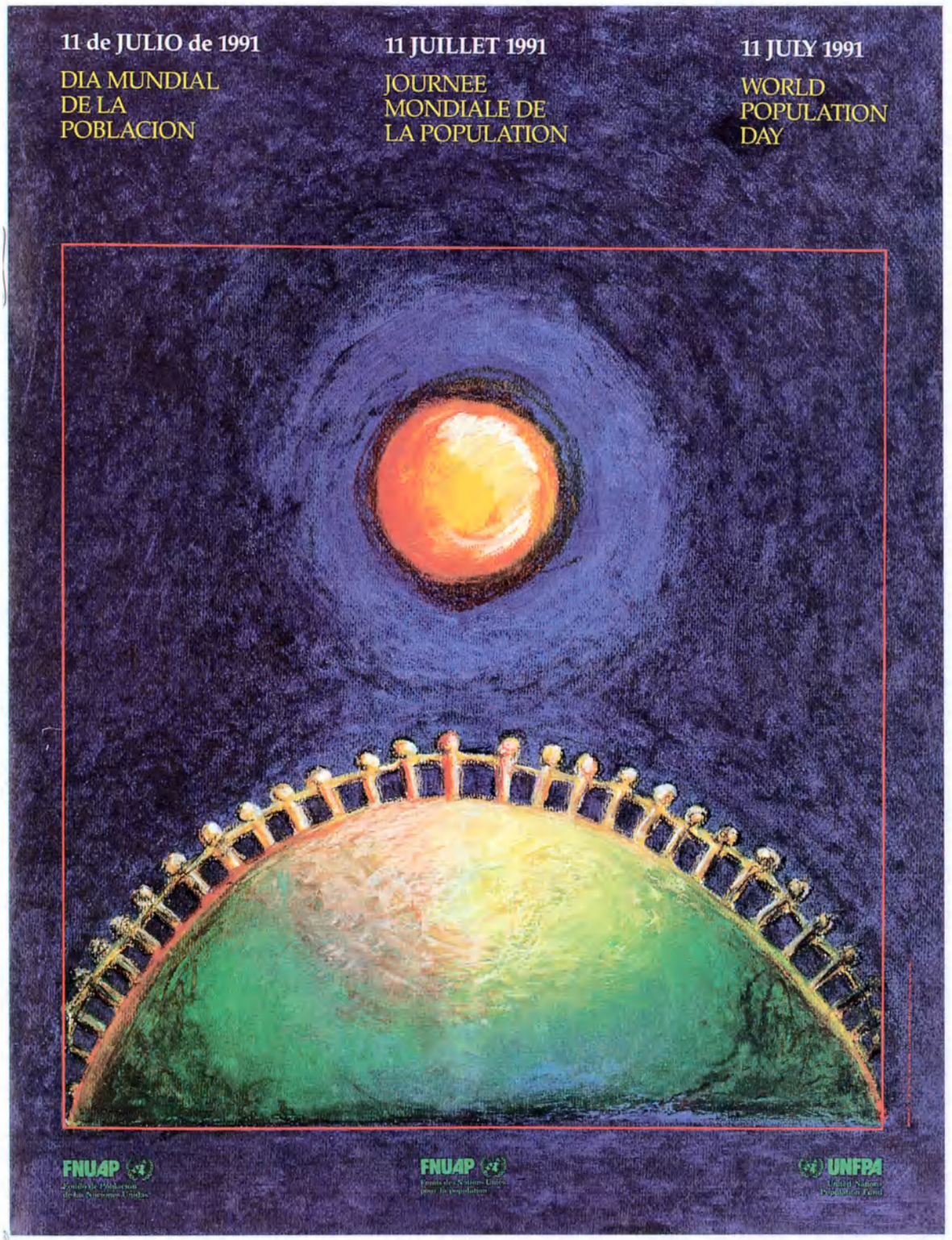


A United Nations Population Fund poster for World Population Day, 11 July 1991.

environments and regions for use as a development planning tool.

How many people can the world sustain?

A very fair first approximation to a global estimate of carrying capacity was made by E.G. Ravenstein in 1891. He made reasonable estimates of the world's cultivable area, its capabilities and capacities and of yield improvements, to arrive at a global capacity of close to six billion people which he thought might be reached about the year 2070, at the then current rates of growth, without much loss or gain in living standards.

Since Ravenstein made his estimation, the global situation has been transformed, not least by the "green revolution". This and other factors for change were taken into account in what was probably the most ambitious attempt at large-area measurement of carrying capacity ever made. This major task, carried out in the early 1980s by the Food and Agriculture Organization (FAO), in collaboration with the International Institute for Applied Systems Analysis (IIASA), covered the whole developing world apart from east Asia and sought to determine the physical

potential population-supporting capacities of all these countries and of soil and climate regions within them. Soil associations derived from the FAO/UNESCO soil map of the world were used together with a climatic inventory created to classify lands by mean length of growing period.

Potential yields for a range of crops were calculated on three bases: of "low inputs" assuming only manual labour, no fertilizer and no pesticides; of "intermediate inputs", with draught animals, some chemical inputs and simple soil conservation measures; and of "high inputs", assuming complete mechanization, full use of optimal genetic material and all necessary farm chemicals and soil conservation measures. Consideration was also given to fallow periods and to the effects of both irrigation and land degradation on productivity. Two time periods were used to determine the relation of actual population to carrying capacity—1975, to represent "the present", and 2000, using United Nations "medium" projected populations.

Results from each soil/climate zone, aggregated by country, suggest that by 2000 most developing countries could support their populations from their own resources only if high levels of input were employed, but also that a number of countries would face inevitable shortage of food; to reach these projections, trade within countries was assumed. Evaluation of the method is best based on the accompanying maps of major regions, which show carrying capacity as persons per hectare for each soil/climate zone, at each level of input. The sheets for a "Southeast Asian" region that extends west as far as Pakistan provide a good basis for analysis; this area exhibits great internal contrasts.

In the entire region, the map for low levels of inputs shows virtually only the north coast of Java as capable of supporting as many as five people per hectare. Almost the whole of Java, Bhutan and Bangladesh, most of Nepal, India and lowland Viet Nam, large parts of the Philippines and several upland areas throughout Southeast Asia have calculated capacities less than their 1975 populations. On the basis of high levels of inputs, only a few small, mainly upland areas are in the latter category, though it is a different story with projected 2000 populations.

More remarkably, however, on the high input assumption most of Sumatra, peninsular Malaysia and the Philippines and the whole south of Kalimantan (Borneo) are shown as having higher capacity (ten or more persons per hectare) than all but limited areas of eastern Java and the north coast of that island. Similarly, most of Kampuchea is shown as having greater capacity to support population at high levels of input than any part of Viet Nam. This information flies in the face not only of present population distribution, but also of a great deal of additional information on the quality of soils and water in certain of these regions, particularly eastern Sumatra and southern Kalimantan, where serious problems have been encountered by transmigrant schemes.

Despite the great body of data handled and the vast resources employed, the methodology differs little from that of the early carrying-capacity calculations of the 1960s. On the basis of incomplete environmental data and a uniform set of assumptions about agricultural technology and basic consumption requirements, a deterministic result is produced. Only food supply is taken into account and industrial and trading capacities are virtually ignored. Moreover, the necessary assumption of the high input levels case, that the best agrotechnology can be applied everywhere and by everyone, displays remarkable lack of realism. As a statement about carrying capacity, this one—based on a one-sector, closed-economy model—merely reveals the impossibility of determining or even conceptualizing what it is in a real, interdependent world.

An empirical notion that should be discarded

Although there have been several further estimates, nothing like the FAO/IIASA project has ever been attempted again. Discussion of carrying capacity, however, goes on and has taken on a new lease of life in the modern context of sustainability. In the new wave of environmental concern it is often argued that population pressure contributes causally to degradation and depletion. It has also been shown that degradation can arise under both high and low population densities and under both poverty and affluence, while restorative management can also occur in these circumstances.

Part of the damage now being done to more and more of the environment is due not simply to increased numbers, but to the greater mobility of people and their activities and the enhanced means they have of dealing damage through such simple innovations as the chain-saw, as well as the tools of modern industry. Growing numbers are certainly a major element, but are not themselves a sufficient explanation.

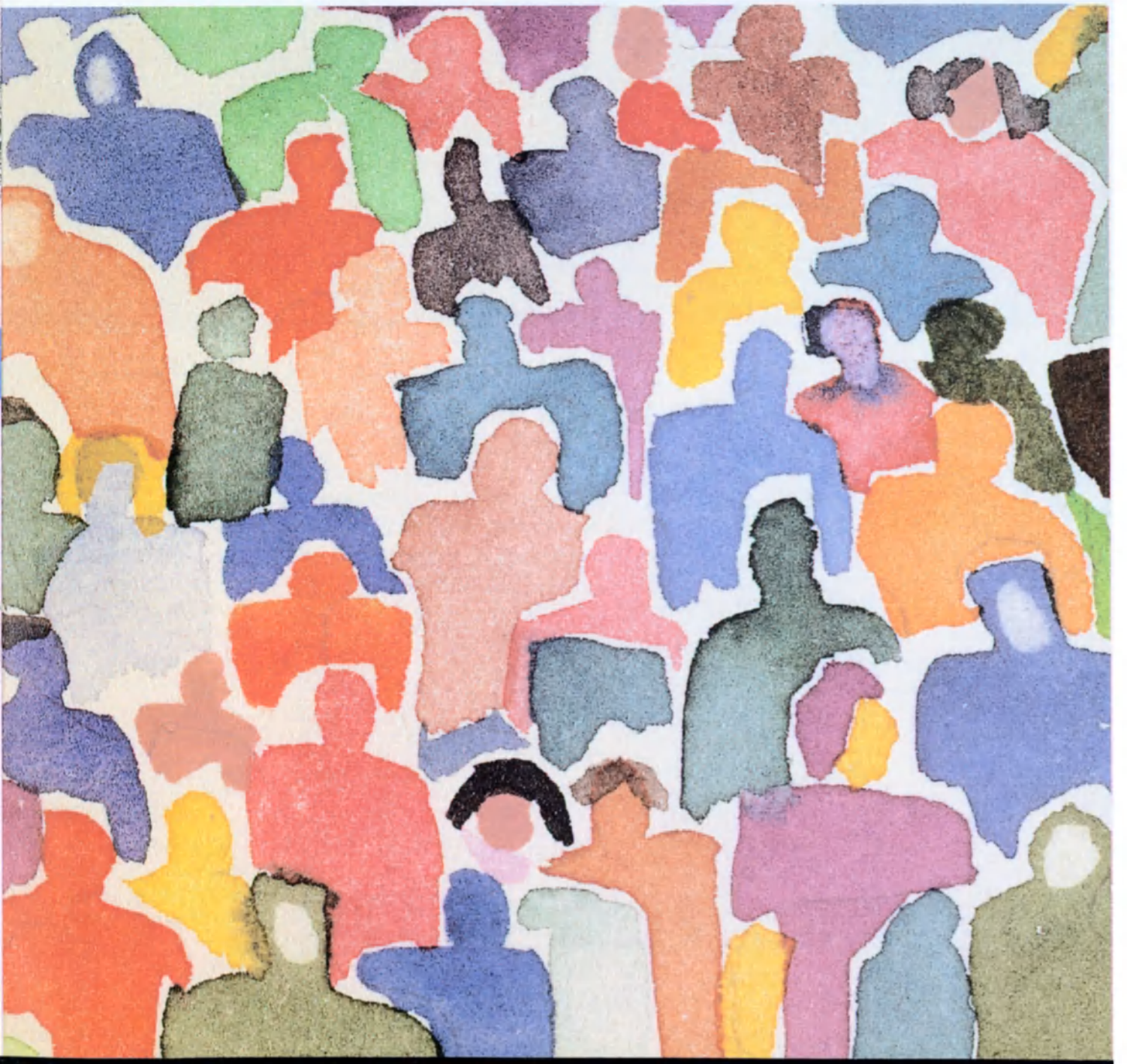
Setting aside speculation about future global warming, there are already ways in which the environment of the whole planet is changed by human activity, with growing population pressure as a major element. Even the advances of the green revolution have reached something of a plateau, though worldwide there is still vast scope

for improvement in both production and conservation.

To focus only on one element, however, is to ignore questions of access to resources and capital as causes of poverty and also to disregard the scope for adaptation provided by the rapidly growing division of labour, with its potential for a more intelligent use of technology. Environmental variability is increasingly shown to have major effects on human welfare and we must allow for the possibility that it will increase with global change. To rely for decision-making on carrying capacity determined on the basis of present conditions is a recipe for disaster.

Except for very specific purposes in very small areas, no attempt to determine a population carrying capacity has attained credence. Repeated predictions have been made concerning the population capacity limits of country after country for at least half of this century. In almost every significant case these limits have been exceeded, while in most cases the present people are now better off than their less numerous predecessors.

Carrying capacity is an empirical notion and it has been empirically faulted so many times that it should already have been discarded, at least as a planning tool for local application. It is an impediment to rational planning for a more sustainable future. Carrying capacity for the whole world may be another matter and on this the last word still seems to be with Ravenstein and the system he employed in 1891. His limits need expansion in the light of what has transpired since, but his very simple methods, using quantities that can readily be changed and updated according to circumstances, are all that so transparently simplistic and conditional a notion deserves. The real problem is much larger; population pressure is as much result as cause, and population numbers, though important, are only one part of the whole. ■



Crowd 2,
a watercolour by the American artist Diana Ong.

Sixty million on the move

by Alan B. Simmons

International migration from South to North is built into a global system of social and economic change

THE modern scientific community takes pride in providing answers to world problems, yet, paradoxically, it often makes a greater contribution by the perspicacity with which it continues to ask questions. The premature proposal of simple solutions to difficult problems often does no more than reveal ignorance.

The complex emerging patterns of international migration are a case in point. Efforts by Europe, North America and other developed regions to shut the door on the rising tide of migrants from the Third World are not only questionable on ethical grounds but may also turn out to be impractical as well. Many migrants will find ways round all but the most costly, vigorous and harsh control systems. This is because the very logic of social and economic change tends to create new avenues and opportunities for migrants. Just how this works is only now beginning to be understood.

Equally misguided is the argument that coordinated international development efforts and economic growth in the countries of outmigration will soon lead to a reduction in South-to-North migration. There is a considerable body of historical evidence to contradict this argument. After a long period of economic growth in the South, pressures promoting current migration trends are indeed likely to ease or stop, but in the short to medium term—over twenty to thirty years or even longer—development efforts will probably tend to increase South-North migration. This is because the mechanization and increased efficiency required to boost productivity will mean that large numbers of workers will lose their jobs. As unemployment rises, so too will the numbers of people seeking refuge elsewhere. The process may run over several decades, since even in the best possible circumstances development is gradual.

"Some 16 million migrants are political refugees. . . ." Above, a refugee camp in Ethiopia.

It is estimated that some 60 million people in the world are currently "on the move". This figure includes people displaced by war, civil strife, political repression, environmental catastrophe, the threat of starvation, economic hardship or the desire to better their circumstances. Some 16 million of these people are political refugees within the definition of the United Nations Charter, that is, they are individuals seeking asylum from a well-founded fear of persecution.

Potential migrants are heavily concentrated in the poor regions of the South—in the previously colonized nations of Africa, Asia, the Caribbean and Latin America, and in the southern regions of the Soviet Union. They not only move to neighbouring countries within their own regions, but, more and more, they are seeking to move to industrially advanced regions such as Europe, North America and Australia.

The Northern nations (and some migrant-receiving nations in the South) are reacting with alarm. In the North, this alarm has been fed by graphic images in the press of Haitian, Albanian and Sri Lankan "boat people" arriving in Florida, Italy and Canada. Some leaders are calling for the expulsion of unwelcome migrants, while others are calling for increased efforts to solve the economic problems in the sending regions so that migrant flows will be stopped at source. In some countries pressure is mounting to stop virtually all immigration.

The concerns underlying these attitudes are complex, ranging from fear that migrants will steal jobs or be a burden on social services, to xenophobia and even racism.

The "globalization" of trade

There is a tendency to blame current South-to-North migration on development failures in the South and, indeed, the 1980s, the "Decade of Development", were marked by economic stagnation and declining levels of real per capita income in Africa, the Caribbean and Latin America. The decade will also be viewed historically as a period of dramatic shift towards "globalization" of markets and a related global co-ordination of national economic policies.

Key trends, which are still under way, include: globalization of production (final assembly based on parts manufactured in various parts of the world); globalization of consumer markets (goods assembled in one nation are sold in many others); the spread of "structural adjustment" programmes (to favour export-oriented development); the rise of international trading blocs (Europe, the North American Free Trade Agreement, the Southern Cone trading bloc in Latin America, etc.). Clearly globalization is not an accident. It is the result of deliberate policies promoted by the developed nations, by major international institutions and by many less developed countries that have taken their lead from one of the major players.

One of the principal effects of globalization has been to differentiate more sharply between the "winners" and the "losers" in economic development. Globalization and the policies supporting it have, for example, worked to benefit the fast-growing economies of the Pacific Rim (The Republic of Korea, Hong Kong, Taiwan, Singapore, Malaysia and Thailand) because they combined political stability, progressive policies on education, low wages and other elements to attract investors and promote exports. Mexico may gain in the near future from globalization due to the size of its labour force, industrial infrastructure and access to the United States.

Other regions have clearly been losers in the new global trade and development game. Africa, for example, has such poorly developed economic infrastructures and such underdeveloped labour force skills that even its very low wages and geographic proximity to Europe did not attract many new investors in the 1980s. Development aid has

Making electronic components in the Republic of Korea.

been insufficient to fill this gap. Foreign direct investment in Africa actually declined over the 1980s, as it did in most countries of Latin America.

Third World countries that have experienced economic growth in recent decades have also generally experienced long periods of high unemployment and significant out-migration, although there are some exceptions. Puerto Rico since the 1950s, Mexico in the 1960s and 1970s, and Korea in the 1970s and 1980s, all experienced rather spectacular economic growth, while at the same time losing large numbers of workers and their families through international migration. High rates of natural population growth and the impact of mechanization in agriculture and industry created far more workers in these countries than could be absorbed in the local economy. In the late 1970s, on the other hand, Malaysia's economic growth was so fast that it actually suffered from labour shortages. This, however, was an exceptional case and cannot be taken as a general model.

Over the 1980s, a much larger number of countries lost ground economically, and rising unemployment and falling real incomes in these nations generated political crises and rising pressure for emigration. We have no crystal ball to indicate which countries will be tomorrow's winners and losers in the global development game. What does seem clear is that development in the new era of globalization will be inherently uneven and will inevitably continue to generate large pressures for international migration. The places of origin of the migrants will shift as global circumstances change.

The environmental impact

Poor nations with limited capital and technology are obliged to seek economic growth through export of those products they can produce cheaply and, when wood and minerals are key exports, control over the negative environmental impacts of forestry and mining tends to become lax. Similarly, the drive to be competitive lowers the State's revenues for environmental programmes, so that deforestation, brought about as poor people seek fuel or new land to cultivate or as entrepreneurs turn jungle into grazing land for cattle, continues unabated.

Environmental degradation is but one element in the interconnected web of forces tending to generate new patterns of South-to-North movement. High unemployment, the rise of an underground economy in illicit drugs, animal skins or ivory, and international migration are all linked in this web.

The developed nations are also involved. Not

Loggers at work in the Central African Republic.

only do the wealthy nations promote structural adjustment and export-driven trade policies in Third World countries (through their central role in the International Monetary Fund and other international financial institutions), but the logic of internal development patterns in countries of the North creates opportunities for migrants from the South.

An international division of labour

Globalization of production has reinforced an international division of labour in which scientific, technological, design, finance, management and control jobs are concentrated in the North, while labour-intensive and manual manufacturing jobs are concentrated in the South. Economic growth in the North leads to an expanding demand for low-cost service and support activities in the developed countries themselves. These are jobs which workers in the developed countries do not want, or will not take at the prevailing wage level—in building, cleaning, gardening, garbage collection, etc. This situation lends itself to the sub-contracting of services to smaller companies which in turn may hire foreign-born workers, including illegal immigrants.

The demand for drugs and other illicit international commodities arises mainly in the North. This has led to a globalization of underground commerce, creating further employment opportunities in both the exporting and importing countries. Illicit commercial opportunities in the importing countries favour migrants since they are well placed to work across languages and to link vendors in their home countries with buyers in their new countries of residence.

A further effect of the globalization of trade and international commerce has been to bring about a dramatic fall in travel and communications costs. Information flows across international boundaries have increased enormously and have given rise to an unprecedented level of information in the South about informal job niches and economic opportunities in the North. This, together with the globalization of consumer products and advertising, has generated a rising demand for income and purchasing power, all of which fuels motivation of potential migrants in poor countries.

An additional level of complexity arises in some major migrant-receiving regions in the North, where the presence of large ethnic communities changes the politics of immigration. Families and ethnic groups originating in Third World countries press the State to open the door to ethnic kin. These pressures are most evident in the multi-ethnic receiving countries—the United States, Canada and Australia.

A changing social and economic world

The conclusion that current trends in South-North migration are part of a global system of changing social and economic relationships, favoured and promoted by the North, will not please those who see the current migration crisis as a process that can be stopped by stiff migration controls or by short-term development programmes.

Solutions to the current crisis must include a longer-term perspective. It must be recognized that, although international development efforts will probably reduce migration in the longer term, these same efforts will almost certainly increase pressures for South-to-North migration in the short to intermediate term.

Water-carriers in the Sahel.

The overall international system, and the way in which the economies of the Northern countries function within it, imply at least moderate levels of international migration. Levels that are too low will be opposed internally as well as externally and will work against economic development and co-operation in the international system.

It is difficult to imagine how economic growth can take place in the South without extensive and rising trade, technical exchange and co-operation with the North. Similarly, it is difficult to imagine how the North can achieve greater security without fair and just co-operation with the South. This mutuality of interest in the new global context will require legitimate procedures to permit the short- and long-term movement of rather substantial numbers of people from South to North as new international institutions and arrangements are forged and strains arising from uneven international development are compassionately dealt with. To imagine otherwise is to go back to a state of greater isolation of nations, conflict between States and international chaos. ■

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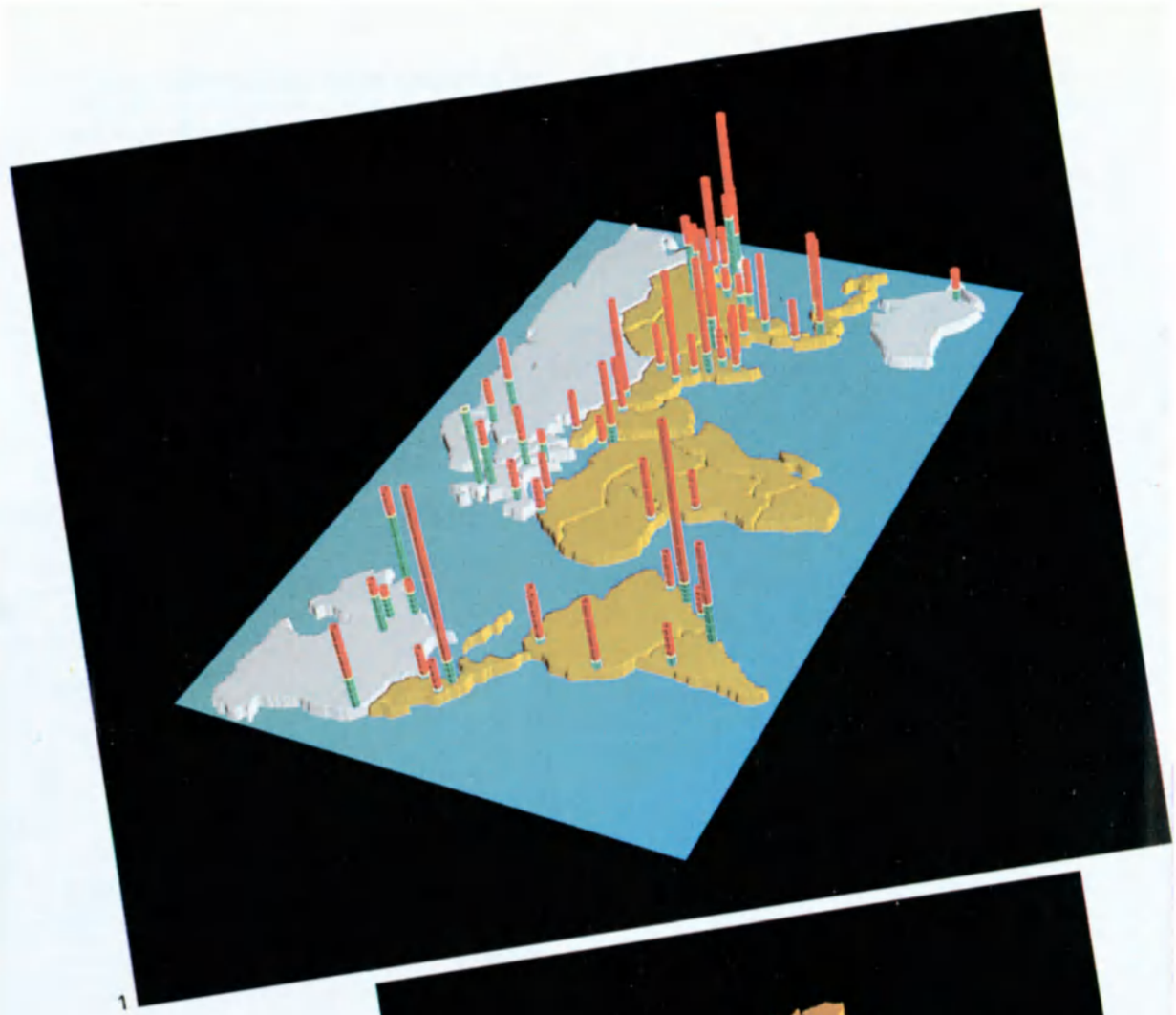

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The urban explosion

by Mehdi Amani

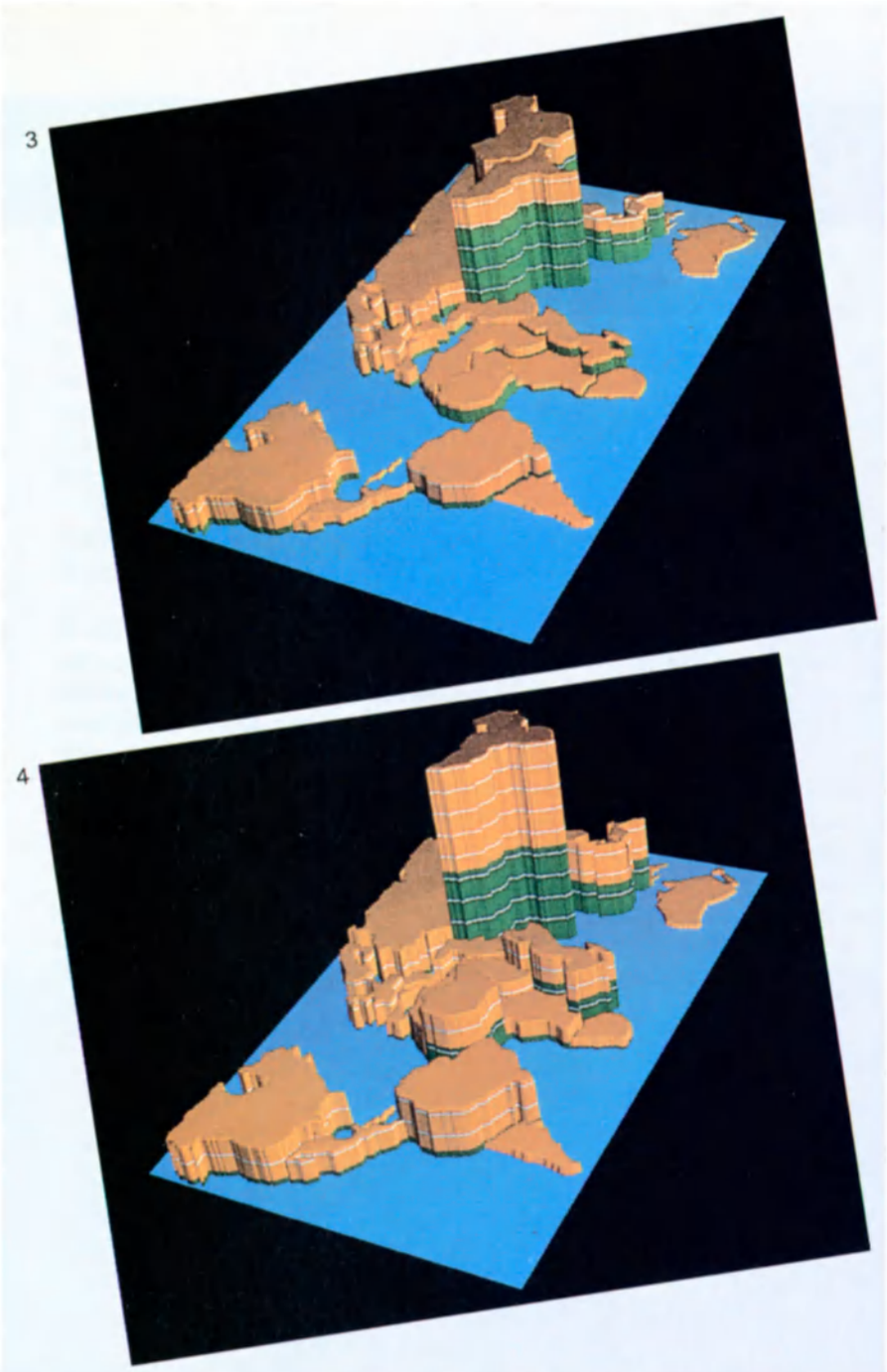
By the end of the century, nearly half the world's population will be living in cities

In 1950, there were 155 million more city-dwellers in the developed than in the developing countries; by 1970, there were only 30 million more. Since then, the developing countries have experienced an unprecedented wave of migration from the rural areas and, as a consequence, urban populations have multiplied by a factor of five or even six.

By the end of this century, nearly half the world population will be living in an urban environment. The number of city-dwellers in the developing world will total 1.9 billion, twice the total for the developed countries. At the same time, the rural population, which by then will be getting on for 3 billion, will continue its inexorable exodus towards the great conurbations.

In regions such as Europe, towns developed at a moderate pace as a logical consequence of the process of industrialization. This process increasingly enhanced the importance of socio-professional groups employed in industry and the service sector, the two main constituent groups of urban populations in the developed countries.

In the developing countries, however, migration flow to the cities began without this prior stage of industrialization and at a frenetic rate; as a result, urban growth in those countries is today three times as fast as in the industrialized



Computer graphic (1) shows cities (represented by vertical bars) projected to have over 4 million inhabitants in the year 2000. Green portion of the bars indicates population in 1950; red indicates growth between 1950 and 2000. Developed regions of the world are shown in white, developing regions in brown. Other illustrations show world population figures for (2) 1950 and (3) 1985, and (4) projected figures for the year 2025. Rural population is shown in green, urban population in brown. Horizontal lines represent increments of 200 million population.

countries. One of the most serious consequences of headlong urbanization has been to denude the rural areas of a large proportion of their active manpower and this has entailed a growing deficit in the production of foodstuffs. As a result, many countries of the South that were once self-sufficient in food have now become major importers of cereals even though they have at their disposal large areas of agricultural land.

The ideal city

Economists and social scientists have long been concerned with the question as to whether there is an optimal size for cities. For some experts, the optimal upper threshold, especially as far as employment is concerned, is around 500,000 inhabitants. At between 1 and 2 million inhabitants the critical point is reached beyond which maintenance of the general standard of living becomes more difficult. These, however, are only average estimates; it is clearly not possible to establish an ideal size that could be applied to all cities in all countries. It would be better to aim at achieving reasonable rates of urbanization, with moderate growth and with limited megalopolitan development.

Nevertheless, urban growth, particularly in the developing countries, continues at a giddy pace. By the end of this century, the world will have five giant megalopolitan areas with populations of 15 million or more, three of which will be in the developing world.

According to United Nations estimates, the great cities in the industrialized world have almost all reached the point of maximum growth at which they are likely to remain for another thirty or so years. Things are shaping very differently, however, in the less developed regions, where many cities that did not figure among the great conurbations in the 1970s now take pride of place among the great megalopolitan areas of the world.

Mexico City, São Paulo, Calcutta and Bombay, for example, which during the 1970s stood sixth in the world ranking, topped the 10 million mark in 1985 to join the ranks of the world leaders. In the year 2000, Mexico City will have 26 million inhabitants, São Paulo 24 million and Calcutta and Bombay a minimum of 16 million each. New urban agglomerations of 12 to 13 million inhabitants will also appear, including the Cairo/al-Jizah/Imbabah conurbation, Djakarta, Baghdad, Teheran, Karachi and Istanbul.

United Nations experts have carried their population projections up to the year 2025, at which time they estimate that there will be 93 cities with more than 5 million inhabitants, of which 80 will be in the developing world. There will be unimaginable growth, with the population of Abidjan being multiplied a hundredfold in 20 years, the population of Mexico increasing by 2,000 a day and the population of Cairo swelling by 40,000 a month.

Tentacular urbanization

In the developing countries, urban population growth results primarily from migration and from the geographical and spatial spread of cities rather than from natural growth (excess of births over deaths). Nevertheless, the fertility of immigrant families and of inhabitants of areas absorbed by the spread of the towns often remains, for at least a generation, higher than that of those who have been city-dwellers from birth. When this period of adaptation is completed, the fall in the fertility rate is often offset by a fall in the infant mortality rate, which drops much more quickly in the urban setting.

Under pressure from these various factors of population growth, city limits creep irresistibly outwards, swallowing up the surrounding agricultural land from which the cities draw their food supplies.

In the industrialized countries, the expansion

of the large cities has no significant effect on agricultural production, which is often in surplus. In the developing countries, on the other hand, this creeping expansion has a disastrous effect on the environment, on resources, on the geographical spread of the population and on social and professional structures. A striking example of this can be seen in the urbanization of 500 hectares of fertile land every year in the Nile delta owing to the expansion of the Cairo conurbation.

This excessive expansion of the big cities involves the construction of complex communications networks which are a heavy burden on shaky economies. Long and costly commuter journeys weigh heavily on the limited budgets of households forced out to the distant suburbs by the high rentals and living costs of city centres.

Controlling urban growth

Reduction of natural population growth rates in the developing countries—by action to influence birth and fertility rates as well as mortality and morbidity rates—figures high on the list of national and international priorities.

Without minimizing the importance of this objective, the urgent need to curb urbanization in the developing countries and to bring it into line with policies for agriculture, employment and population distribution also needs to be emphasized. If urbanization and the mass exodus from the rural areas continue unchecked, there is a danger that a slowdown in population growth may of itself lead to a fall in agricultural production and an upsurge of unemployment in the cities.

The urban crisis and the social, technological and economic problems it brings in its train are acting as a brake on the economic advance of the countries of the Third World. It must be perceived as a worldwide process that requires concerted action. The measures adopted should be designed to promote the maximum development of the economic potential of the country concerned, especially in the rural areas. The aim must be to attempt to equate more closely the productivity per head of the population in the various regions by making the most of the natural and human resources at their disposal.

An effort should be made to rectify the excessive concentration of infrastructures, economic activities and services in the big towns and cities and to create industries and intermediate areas of activity to absorb rural manpower. Education and training of rural populations, especially the younger age groups, is essential if unemployment and disparity of earnings, which are among the main causes of the rural exodus and the overpopulation of the towns, are to be reduced. In short, rural development should be integrated into national development by closer collaboration between local communities and the public authorities at the highest level. ■

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THE history of African migration is as old as the history of the continent. Population movement for political, economic, religious and security reasons, as well as in response to demographic factors, has been recorded from early times. More recently, however, the patterns, directions and motivations of migration have been deeply affected by the colonial experience, which in turn influenced economic, social, cultural, political and demographic development.

The major streams of internal migration include: migration from one rural area to another (rural-rural migration), migration from a rural to an urban area (rural-urban migration), migration from one urban area to another (urban-urban migration), and migration from an urban to a rural area (urban-rural migration). In the African context, however, the distinction between internal migration and migration across national frontiers is blurred by the cultural affinities between societies arbitrarily demarcated into separate States. Thus the rural-rural stream is not confined to internal migration, indeed, most inter-country migration is of the rural-rural type.

Why people migrate

The decision to migrate is triggered first and foremost by economic considerations. People migrate to improve their economic well-being and when they are unable to satisfy their aspirations within the existing opportunity structure in their locality. This does not, of course, apply to those displaced by natural disasters, such as drought or famine, or those fleeing war or political oppression.

Internal migration takes place in large part in response to existing imbalances and inequalities in development, employment opportunities, income and living conditions between the regions of a country, the dominant direction of such movement being dictated by the location of employment-generating projects. Thus, where public and private investment is concentrated in the major city, as is the case in most African countries, the dominant migration stream will be directed towards the capital. Where plantations, mines and other enterprises are located in rural areas and offer ready employment and other opportunities, a substantial stream of rural-rural migration is to be expected. This is the case, for example, in Tanzania, Kenya and Cameroon.

The decision regarding where and when to move is also affected by the experiences of, and information received from, members of the family who have already migrated. Migrants in Africa take advantage of the network of relatives and friends in the towns to ease the migration

Migrant Africa

by Aderanti Adepoju

Today more Africans than ever are on the move

and relocation process. The welfare system of the extended family supports newly-arrived migrants and shelters them from the strains and stresses of the urban environment. Indeed, migration in Africa is usually a household rather than an independent, individual decision. Migrants also tend to maintain links with their place of origin through periodic visits as well as by the remittances they send back to relatives left behind.

In most of Africa, the structure of employment is such that in plantation agriculture, industry, commerce and transportation, the demand is mostly for men. Consequently, men tend to migrate alone, leaving their wives and families behind, at least initially.

This has shaped the perception of the sex roles, which tends to associate women almost exclusively with the task of housekeeper and mother and with the economic structure of the household. There is a lack of data about the involvement of women in the migratory process owing to the numerical preponderance of males in the migratory streams and the "invisibility" of women who, as wives, merely accompany (family migration) or join migrant males (marriage migration). However, recent studies have shown that

Tuareg on the move in Niger.

autonomous female migration directed towards attaining economic independence through self-employment or wage earning has intensified.

The propensity to migrate is closely correlated to educational attainment. Migrants are generally younger and better educated than the rest of the population in their place of origin. This reflects, in part, the youthful age structure and the greater access to education by the younger generation. Migration itself is linked to the pursuit of formal and informal education in the cities, where most post-primary institutions, apprenticeship opportunities and informal sector activities are concentrated. Since most wage employment is centralized in cities, rural youths who invest heavily in education must of necessity invest also in migration if their education is to pay off.

In countries where cities have reached a relatively advanced stage of urbanization and economic development, women tend to predominate in the cityward migration stream as their educational status improves. The expansion of the service sector generates extra employment opportunities for women and this, coupled with their increased participation in wage employment, means that the migratory sex ratio now favours women, whereas in the early stages of city growth migration was male dominated. Few African countries have reached this stage. The exception is West Africa where women have for some time been dominant in the distributive trades. At this stage urban-to-urban migration predominates, replacing the rural-to-urban migration characteristic of the initial stages of urbanization.

Many migrants—craftsmen, labourers, semi-skilled workers and service workers—now prefer to migrate first to a neighbouring, medium-sized town where they are likely to have relatives and where cultural similarities make the adjustment to urban life easier. For many migrants such medium-sized towns will be their final destination; for others, the so-called "step" migrants, they are simply a stopping place on the route to the capital city.

One other special category of internal migrants has yet to be mentioned—the nomads. These are pastoralists, most of whom are illiterate, who roam with their livestock over extensive areas with little concern for national boundaries. Most nomads are to be found in Chad, Ethiopia, Mali, Mauritania, Niger, Kenya and Somalia.

The effect on the cities

It is estimated that migration accounts for more than half the high annual growth of the urban population in Africa. Yet the economic bases of cities are grossly inadequate to provide jobs, decent housing, clean water, smooth traffic circulation and a clean environment for their teeming populations.

The age selectivity in cityward migration in predominantly non-contraceptive African societies makes the urban age structure conducive to high fertility. The combination of a high natural increase and accelerating in-migration means that

Schoolboys receive agricultural training in Zambia.

Africa's urban population consists predominantly of young adults at the stage of family formation. As a result, Africa's major cities today appear overwhelmed by the problems of rapid growth: traffic jams, constant power cuts, water shortages, slum housing and squatter settlements, uncleared refuse and deteriorating sanitation. The age structure of the urban population is such that this situation is likely to continue for decades.

Migration policies aimed at alleviating these problems are normally focused on the migrants themselves, their place of origin and their destination area. Two broad policy types—urban-oriented and rural-oriented strategies—have been applied in many African countries.

Five urban-oriented strategies have been pursued: direct controls or closed city programmes to prevent in-migration (Republic of South Africa); urban rustication or forced return to rural areas (Mozambique); dispersed urbanization (Nigeria); decentralization through the promotion of medium-sized city growth and regional development (Zambia, Algeria); creation of new capitals (Nigeria, Tanzania).

A few urban renewal programmes designed to expand the economic and social base of the towns to accommodate the influx of migrants have been implemented, as have policies to make jobs labour intensive and improve the social infrastructure. In countries that have experienced high urban unemployment among young school leavers, selective programmes to absorb the young unemployed migrants have been tried out, such as the establishment of special youth camps (Somalia, Zambia) and farm settlement schemes (Ghana, Nigeria).

Several countries have experimented with programmes aimed at enhancing the income of farmers, improving employment opportunities in rural areas and arresting out-migration at the source. Efforts to retain or redirect migrants by creating poles of regional growth, by shifting the capital city or through small town development have not achieved the desired results. Countries that have implemented rural development programmes through plantations in rural areas (Tanzania, Ghana, Côte d'Ivoire), or have combined provision of social infrastructures with rural employment opportunities, have succeeded in retaining a sizable proportion of potential out-migrants in rural areas.

The question as to who decides who moves and where they move to raises fundamental issues of human rights. This is especially true in the case of forced regrouping of people into compact villages or forced migration to areas specified by governments. In cases such as these the specific needs of the people involved are not adequately taken into consideration.

Devising successful policies

The success of internal migration policies depends to a large extent on a number of social, political and economic factors including: the political system itself, the extent of government commitment, the influence of private sector investment patterns and the effectiveness of government. In Africa, as elsewhere in developing regions, such policies tend to succeed when they enjoy high national priority, a considerable allocation of resources, effective co-ordination across various levels of government and when policies are centrally administered at the national level. The poor performance of internal migration policies in general can also be attributed to limited control by governments over private investment in the free market economies, the high costs of projects and conflicting, unco-ordinated policies.

Planners in Africa have come to realize that the fundamental causes of migration lie in social and economic structures and that, although the trend to cityward migration appears to be irreversible, it should not be allowed to proceed without due policy guidance. Hence the promotion or the development of medium-sized towns and rural development should be seen as parallel strategies to slow down the growth of the major cities.

At the rural end, sustained efforts should be made to stimulate the growth and expansion of rural informal sector activities and, where feasible, the setting up of or active support for rural industries and craft activities so as to diversify the rural economy, generate additional employment opportunities and enhance the income and living conditions of rural populations. ■

Guineans in Gambia set out on a trip to Conakry.

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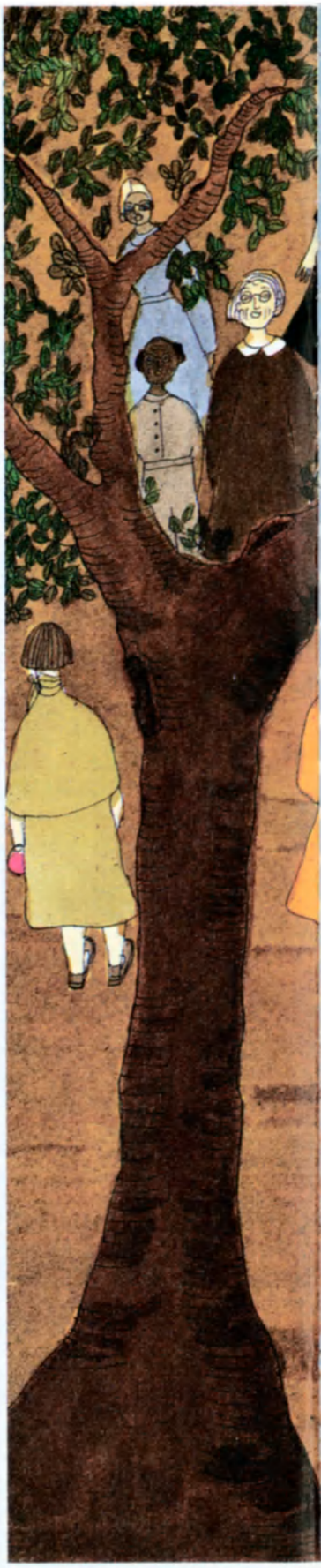
The greying of the planet

Now that people are living longer more and more generations are coexisting, often in the same family



THE world has just experienced three decades of rapid demographic change. In the past thirty years, world population has grown from 2.7 billion to a little over 5 billion. During this period of unprecedented expansion, something occurred, at first unremarked, that, nevertheless, was of great importance for the future—for the first time since the eighteenth century, during the early 1970s, the growth rate of the world population began to decline.

This new trend was an indication that, following the industrialized countries, Third World countries were in their turn entering the phase of demographic transition (see box page 17). In other words their fertility was dropping. The speed with which this demographic transition is completed is likely to be the factor which determines not only the future size of the populations concerned but also their age structure. The faster the transition phase is completed the more quickly their populations will age; for, as the French demographer Alfred Sauvy used to say, populations have no other choice than to grow or to grow old.

When all is said and done, the aging of a population, defined here as an increase in the proportion of old people in relation to total population, is striking evidence of the successes achieved in gaining technological mastery over certain aspects of life and death. The sometimes excessive fears expressed about population aging seem, therefore, somewhat paradoxical. Perhaps this rather pessimistic attitude finds its roots in the negative idea that the individual has of his or her own aging—an ineluctable process that ends in death. No one can halt the passage of time and, for the individual, rejuvenation is merely a metaphor. Populations, however, do not stand in the same relationship with time; through the interplay of fertility and mortality rates, they can indeed grow younger or older or maintain a stable age structure. Of course, there are thresholds above which the aging of a population becomes virtually irreversible, but it is possible to achieve a stable state in which the process of aging is, as it were, suspended in time.

The age pyramid

In demographic studies, intuition is not the most trustworthy of guides, especially when the study concerns the causes of population aging. For example, of the three major demographic factors (fertility, mortality and migration), the one that has, until recently, contributed most to population aging is the drop in fertility—and not, as one might have thought, a drop in mortality. Reducing as it does the number of births, thus reducing the size of the lower levels of the age pyramid, a drop in fertility has been the most influential factor affecting the age structures of the developed countries. The same holds true today for the developing countries.

The effect of lower mortality is less marked, since it is applicable to all ages; indeed, it may contribute to a certain rejuvenation of the population when it is centred primarily upon infant mortality. It is only during the last twenty years that the fall in mortality, which in the developed countries has affected primarily the older age groups, has contributed to the aging of these populations by increasing the number of those surviving within these age groups. Migration, however, appears to have only a marginal effect in the context of the population as a whole.

Mention should also be made of a fourth factor that has recently been brought to the fore—the initial age structure. Populations that have experienced important demographic change, such as the postwar baby-boom, have stored up a considerable potential for population aging. A similar situation exists in certain Third World countries such as China, where rapid population growth has been followed by a sharp fall in fertility.

Growing old together?

Comparative figures for population aging, together with their recent and foreseeable evolution, show that, in the industrialized countries, the 60-and-over age group has grown from 11 per cent to 17 per cent in 40 years and is expected to increase by another 8 percentage points in the next 35 years, attaining a proportion higher than

"... The reduction in the ranks of the younger generations, the demographic burden of the older generations and the lengthening of the average life-span are helping to reshape the family pattern." Ink on watercolour paper, by Faouzia Niazi-Lane (Egypt).

by Jean-Claude Chasteland

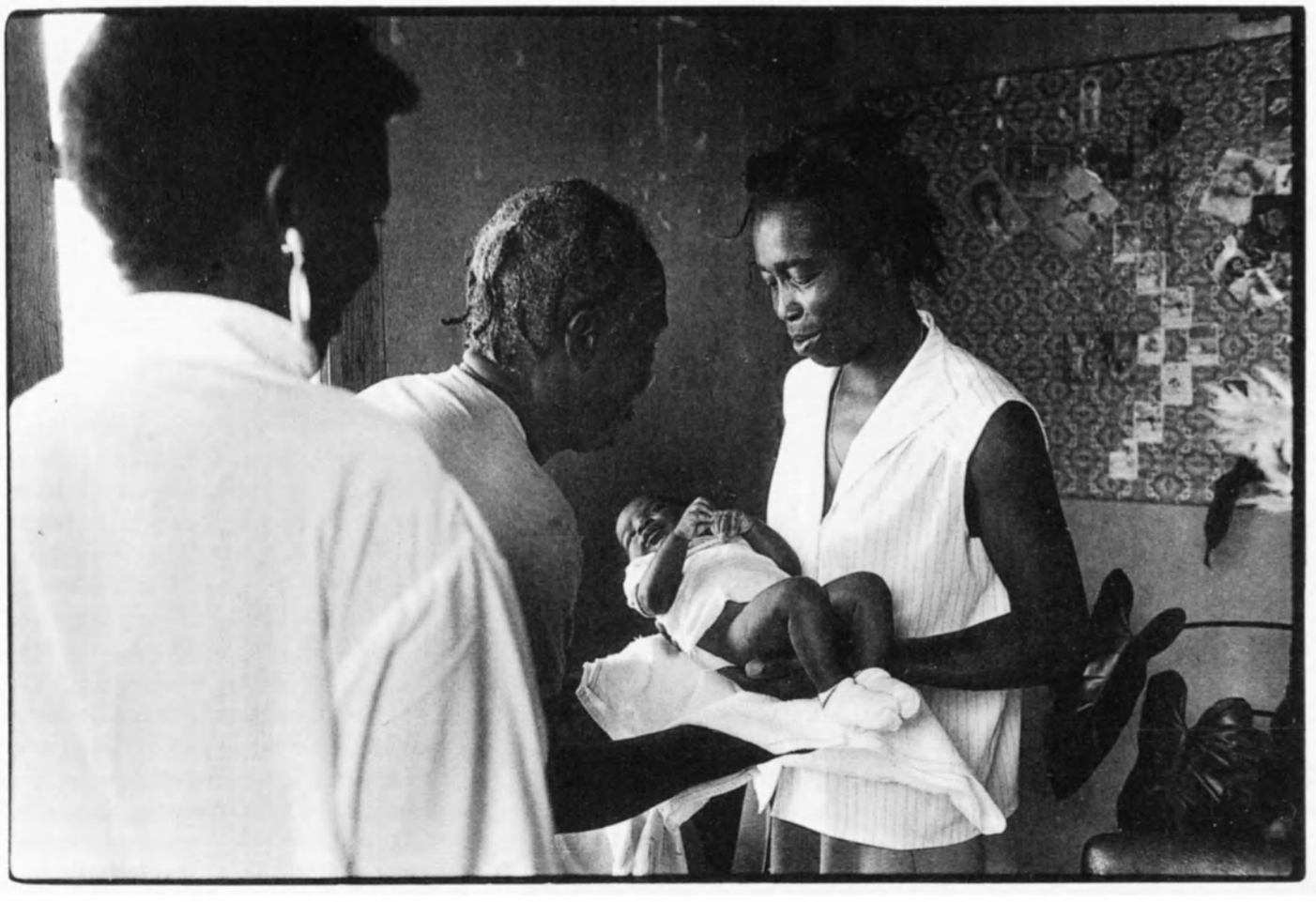
that of the steadily diminishing under-15 age group.

In 1950, in the developing countries, the 60-and-over age group represented 6 per cent of total population, the equivalent to the proportion that obtained in France in 1775. Not until the year 2025 will this proportion rise to the level attained in the industrialized countries in 1950.

Nevertheless, the foreseeable pace of population aging for the developing countries seems likely to be faster than that in the countries of Europe. When the European countries entered the phase of demographic transition, it took them at least 100 years (in France), and often 150 years (Germany and UK), to reach the threshold of 12 per cent in the 60-and-over age group, a point the developing countries as a whole are expected to reach in 75 years. In countries such as China, where fertility has fallen dramatically, this percentage will have been reached in a period of about 50 years, some time between 2005 and 2010.

Governments, however, whose task it is to draw up policies and programmes, are less concerned with percentages than with absolute numbers of elderly people. In 1950, there were 430 million people in the world aged 60 and over. Of these, 250 million were in the developing countries. In other words, the Third World countries had 70 million more people in the 60 and-over age group to look after than the industrialized countries, but with nothing like the same resources with which to face up to the problems of old age.

One last figure deserves examination—that of the very old. Medical advance has made and will continue to make it possible to enhance the chances of survival of the very old. Unfortunately, this has not been matched by any very significant improvement in the physical and mental condition of these survivors. In 1950, in the industrialized countries, 40 per cent of those in the 60-and-over age group were over 70 years of age. In 1990, the proportion was of the order of 50 per cent, and this is likely to be maintained until the end of the century. In the Third World, in 1950, the very old accounted for 30 per cent



Four generations of women under one roof (Marie-Galante island, French Antilles).

of the 60-and-over age group; in 1990, the proportion was over 37 per cent and, in 2025, is likely to reach 40 per cent.

In absolute numbers, there are today as many very old people in the industrialized countries as in the developing countries—just over 90 million. By 2025, however, the situation will have changed completely, since there will be 160 million very old people in the North as against 338 million in the countries of the South—an increase of 400 per cent on present numbers. This "explosion" of the number of very old people should be seen in the context of an increase in total population in the Third World over the same period of 70 per cent.

Clearly, changes on this scale in the age structures will have important repercussions on the demographic structure of families. In the industrialized countries, the reduction in the ranks of the younger generations, the demographic burden of the older generations and the lengthening of the average life-span are helping to reshape the family pattern. At the beginning of the industrial revolution, half the individuals born lived beyond the age of twenty; today nearly half live to celebrate their seventy-fifth birthday. The family of two or three generations will be replaced by the four-generation family, which will include two generations of retired persons and will be predominantly female.

Does this evolution signal one of the final manifestations of the nuclear family, which will have gained vertically what it has lost horizontally? Or should we talk simply of the phenomenon of family aging? In most Third World countries, this situation is still a long way off, but in a few, in which life expectation is approaching seventy and in which fertility is almost at replacement level, nearly all the conditions are in place for the appearance of this new-type family. One essential point to note is that this aging has become apparent in countries whose level of development bears no comparison with that of the industrialized countries at the time when their populations began to age.

The weight of years

In the analysis of change in the age structure of populations, demographers have the easiest role to play. Their task is merely to lay down markers to the more important trends that will be of use in making projections for the future. It is quite another story when it is a question of drawing the economic and, above all, the social consequences of population aging. It would obviously be impossible to deal here with all these consequences, but mention should be made of some of them.

The first of these is the potential effect of aging on the process of production, and especially

World population trends by age group between 1950 and 2025
(percent)

	World population				Industrialized countries				Developing countries			
	0/14	15/59	60 and over	Total	0/14	15/59	60 and over	Total	0/14	15/59	60 and over	Total
1950	35	57	8	100	28	61	11	100	38	56	6	100
1990	32	59	9	100	21	62	17	100	36	57	7	100
2000	31	59	10	100	20	61	19	100	34	58	8	100
2025	24	61	15	100	18	57	25	100	26	62	12	100

Source : *Economic and social implications of population ageing*, United Nations, New York 1988.

on the working population. In the industrialized countries, the irregularity of the generation flow since the war will result in a series of peaks and troughs in the work force. There will also be longer or shorter spells of aging. Caught between the conflicting evolutionary currents of the younger and the older age groups, the working age group will start to decline from the beginning of the next century (see Table this page). The increasing entry of women into the working population has, it is true, helped to compensate for earlier demographic deficiencies, but it is by no means certain, in some countries at any rate, that fuller incorporation of women into the work force can be achieved without an unacceptable fall in fertility. Increased immigration of foreign workers could provide an alternative demographic solution, but the problems this can raise in the industrialized countries are already evident.

These difficulties have led to plans for greater participation of older people in the work force. In the industrialized countries, however, where the burden of supporting retired persons is very heavy, governments are torn between the desire to reduce unemployment by allowing those close to retiring age to take early retirement and the need to have a sufficiently large work force to finance their retirement systems. These conflicting preoccupations also exist in the developing countries, where employment policies are impelling governments to allow retirement at a relatively low age bearing in mind the levels already reached in expectation of life at birth. It is clear, therefore, that the size of the retired population is as much a result of political and economic choices as it is of the vagaries of demographic change.

No definite conclusions have yet been reached on the much-debated question of the negative effect of the aging of the work force on productivity. Some experts maintain that population aging results in a reduction in the structural flexibility of the productive machine and acts as a brake on necessary change; others reject this pessimistic view, recalling that, in the middle of the nineteenth century, the French sociologist Auguste Comte was predicting that an increase in the life-span would act as a brake on social advance since it would slow down the pace of generation replacement. Closer to our day, Japan and Germany provide examples of how populations seriously affected by aging can demonstrate extraordinary economic dynamism provided that the aging process has been assimilated into their long-term development strategies.

The role of the family

Population aging, however, does more than modify the structures of the productive mechanism; it also imposes on it considerable constraints—the financing of pension schemes and of certain very expensive forms of consumption specific to old age, such as medical attention.

The ratio between the numbers of economically active and inactive adults gives us an initial approximation, in demographic terms, of the size of this burden. In the industrialized countries, this ratio, which now stands at 3 to 1, will, by 2025, fall to 1.5 active adults to 1 inactive adult. In the developing countries the ratio is much more favourable; at present it stands at 7.2 active adults to 1 inactive adult, but, by 2025, it will have fallen to 3.9 to 1. Time and space comparisons such as these must be treated with circumspection, since this ratio, which does not take into account present and future differences in the productivity of the working population, has only limited value as an indicator.

The increase in public expenditure devoted to pension schemes and medical and social services for the elderly has revived discussion of the respective roles of the family and the community in assisting the older generation. But before embarking on a discussion as to the relative merits of this or that form of assistance, we need to know how global demographic trends will affect kinship structures and thus the constraints that demographic change will have on the family.

The English historian Peter Laslett has pointed

A 100-year-old man and his 95-year-old wife tend their garden in Beverly, Mass. (U.S.A.). As a result of progress in medicine, the number of very old people is increasing.

out that in England, in the time of Thomas Malthus (1766-1834), the poor laws already bore the stamp of demographic necessity. Despite high fertility and a high marriage rate, 20 per cent of female children were orphans by the age of 10, and, at the age of 65, the same proportion of women had no close relatives. The only possible solution was for these people without family to be cared for by the community.

Today, the number of orphans is very low owing to a great reduction in the mortality of parents. On the other hand, the marked fall in fertility may create situations in which adults will find themselves with no family support in their old age. Since empirical data on kinship structures are rare, even in the developed countries, demographers have had recourse to models which enable them to reconstitute the initial shape of kinship structures and to learn how these structures evolve under certain demographic constraints. For example, if mortality is held at a very low level, and if the fertility rate is made to vary from 1.8 children per woman to 1.4 over the same 50-year period, the proportion of elderly women aged 65 or over without children of working age will vary from 4 to 14 per cent.

Although the demographic situation is very different in the developing countries, applying such models to them is of greater use, since in these countries the family still plays an essential supportive role. Warning signs of difficulties to come are already apparent in countries such as China, where the policy of one child per family has not only accelerated the onset of the demographic transition, but has also upset the traditional equilibrium within the family.

Competing generations

The rapid demographic changes that have occurred in recent decades will lead to new relationships between the generations. The extension of the life-span implies an increase in the number of co existing generations. As one writer pointed out, today's societies are made up more and more of people who are not contemporaries. To this must be added the ups and downs in the numbers of successive generations, whose economic, social and demographic behaviour tends to be radically different. To take just the question of the variations in the generation flow, particularly within the youngest and the oldest age groups, this is certain to contribute to an intensification of social tensions when a choice has to be made concerning the allocation of resources to the various dependent groups. In the present climate of reluctance to add to the tax burden, it seems unlikely that there will be any increase in these resources. More than this, the competition between the generations is likely to be all the more acute in that modern industrial societies seem to be prepared to sacrifice the principles of solidarity on the altar of immediate individual satisfaction. ■

"The marked fall in fertility may create situations in which adults will find themselves with no family support in their old age."

JEAN-CLAUDE CHASTELAND is a French demographer who was head of the United Nations Population Division in New York until 1990, and is now a consultant with the French National Institute of Demographic Studies (INED) in Paris. He has published many articles on the demographic problems of the Third World and on questions of population and development in general.

UNESCO IN ACTION

Rewarding fair play

The UNESCO-supported International Fair Play Committee has awarded its 1990 trophies to the Italian footballer Dino Zoff and the British kayakers Ian Lawler and Graham Burns. Zoff, for many years the goalkeeper in the Italian national side, was cited for career-long exemplary conduct towards team-mates, opponents and the public. He never contested referees' decisions and once, before a match in Rome, had a streamer which was offensive to the opposite team removed. Lawler and Burns were nominated for a sporting gesture during the 42-kilometre 1990 World Championship event. The two, representing their country, stopped to help the Danish team, whose rudder was damaged, enabling the latter to go on ahead of them and win the Gold Medal. Diplomas of merit were also awarded to a number of sportsmen, teams and clubs, and to the French sports daily *L'Equipe*.

A boost for population studies

UNESCO is launching an international project to introduce population education at universities, particularly in developing countries, which continue to have the highest population growth rates and are increasingly recognizing the importance of demographic studies. The Organization, which has already helped introduce population education in primary and secondary schools in about 100 countries, will assist with the training of teachers and researchers as part of efforts to make the subject a permanent feature of the academic curriculum.

UNESCO's environment activities on microfiche

The principal books, articles, working papers and conference documents produced by UNESCO, or under its auspices, from 1985 to June 1990 on the theme of the environment have been put on microfiche. The set contains 8,400 pages on 100 microfiches packed in a plastic card-index box, and comes complete with a 137-page index comprising subject index, masterfile listing and title index. The price is 2,600 French francs per set. To give potential buyers an idea of the scope of the compilation, the index can be obtained on microfiches free of charge from UNESCO Press, Sales Division, 7, Place de Fontenoy, 75700 Paris, France.

Just published, latest volume of *Index translationum*

Volume 38 of *Index translationum*, UNESCO's guide to world translations, is now available. It lists 57,374 translations published in 1985 in 59 UNESCO Member States, including some works published earlier that had not previously been listed. The *Index*, the first volume of which came out in 1948, is a reference work targeted principally at publishers, translators, writers, teachers and students.

Tobacco alert

As a response to the dangers of tobacco not only for the health of smokers but also for non-smokers exposed to the fumes from other peoples' cigarettes, the World Health Organization (WHO) has named 31 May as World No-Tobacco Day. The aim of this annual event is to encourage smokers to give up the habit and to draw the attention of the public and of policy-makers to its harmful effects. The day has a different theme each year. In 1991 the focus was on smoking in public places and transport. This year's message will be "tobacco-free workplaces: safer and healthier". Smoking is discouraged at UNESCO, and is forbidden in meeting-rooms, workshops and rooms where the air cannot circulate.

Time to celebrate

The *UNESCO Courier* has been awarded the 1991 Türler Media Prize for its April 1991 issue, "Perceptions of Time". The prize, worth 10,000 Swiss francs, was established in 1984 by the Swiss watchmaking firm Türler, and is awarded annually to a publication devoted to the theme of time. Türler has had 9,000 copies of the German-language edition of the issue printed in a reduced format for distribution to its clients.

UNESCO issues Mozart medal

To commemorate the 200th anniversary of the death of Mozart, UNESCO has issued a medal struck by the Paris Mint. Designed by the French artist Raymond Joly, the medal bears a stylized portrait of Mozart on the obverse and the UNESCO temple motif on the reverse.

Celebrating Latin America's women writers

UNESCO is paying tribute to Latin American women by hosting the 3rd International Symposium on Latin American women's writing from 23 to 25 January. The Symposium will feature round table discussions on themes such as "the myth of women and death" and "literature and human rights", as well as an exhibition of the work of Latin American artists and showings of films presented at the Leipzig Festival of Latin American Women's Cinema, held in November 1991. Many figures from the worlds of literature, the arts and publishing will be attending the Symposium, which will close with a book-signing session in a Paris bookshop specializing in Latin American literature.

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PETRA

THE ancient city of Petra lies in a semi-arid region of south-west Jordan that dominates the desert of the Arabah depression, dropping down more than 1,000 metres to the west. The massif forms a natural fortress, where once was built a strange city, the capital of a kingdom that dared to resist the might of Rome.

Today, Petra is one of the most beautiful historic sites of the Middle East, a testimonial, unique in size, to cave architecture, or what one might almost call troglodytic urbanism. Its 45 square kilometres house a succession of over 500 great monuments, hewn from the rock by astonishingly gifted Bedouin architect-sculptors more than 2,000 years ago.

The road to Petra snakes through grey, stony desert on a high, arid plateau. It is difficult to believe that once, in ancient times, an oak forest grew here. Then the road descends into a small valley. Suddenly, at a bend in the road, the magnificent site of Petra comes into view below, a rocky chaos to which the city owes its name, for "petros" means rock in Greek.

Coming down from the plateau, the traveller is plunged into a lunar landscape of yellowy-white sandstone carved into thousands of sugar-loaf or whaleback-shaped domes, an expanse of humps and protuberances whose contours are thrown into relief by the harsh light of dawn. Already the first cave monuments of the city can be made out, among them the Obelisk Tomb. Gradually the whiter rock gives way to steep slopes of rose-red sandstone, which give the Petra massif its dominant colouring.

The road into the massif passes through the *Sik*, a narrow gorge about 3 kilometres long, 100 metres deep and narrowing in places to a width of a bare 3 metres. Straight stretches are punctuated by sudden bends until the gorge gradually opens out on a huge depression ringed by flat-topped mountains whose sheer slopes are dotted with magnificent monuments.

The spectacle is overwhelming. In places, patches of black, white and yellow alternate with the dominant red of the multi-coloured

Left, approaching Petra through the *Sik*. Opposite page, the white sandstone façade of the Obelisk Tomb, near the entrance to the site.

the rose-red capital of a forgotten people

by Jacěk Rewerski

stone, which erosion has shaped into a natural work of art, a ruined landscape of cliffs and ravines pitted with grooves and cavities in which sumptuous forms have been carved by the hand of man.

The Valley of Moses

Everything in Petra speaks of history. Before it even reaches the massif, the road runs through the *Wadi Musa* ("the valley of Moses"), at the entrance to which, under a white dome, rises a spring reputed to be the one the patriarch caused to flow from the rock during his crossing of the desert.

Local tradition also claims that Moses' brother Aaron is buried under the *Djebel Horoun* ("Mount of Aaron"), where a small white mosque supposedly shelters his tomb. Charming in its rustic simplicity, it is a place of annual pilgrimage.

Other legends have built up around the *Khazna Firaoun* ("Pharaoh's Treasury"), an astonishing cliff monument facing the mouth of the *Sik*. It is topped by an urn that Bedouins used to shoot at with their rifles in the hope that from it would spill out the the gold of the Pharaohs. The entire façade bears the scars of their treasure-hunting.

Who were the sculptors and architects of Petra? The Nabataeans, who probably originated in southern Arabia, appeared in the Middle East around the fourth century BC. Strabo and Diodorus Siculus, two historians of the Augustan era, tell us that the tribe consisted of some 10,000 nomadic Bedouins who used to trade between Arabia and the Mediterranean. These caravaneers, "determined to preserve their liberty . . . calling the desert their homeland", who "have no vineyard or field or seed, and have not built houses to dwell in" (Jeremiah 35), nonetheless built an empire with Petra as its capital. Diodorus Siculus wrote of them: "They surpass other Arabs in wealth, even though there are only 10,000 of them."

Petra benefited from a site that guaranteed the security of its inhabitants and had its own water source, the *Aïn Musa*—an element of prime importance in the desert. Its location at the crossroads of the trade routes linking Syria to the Red Sea and India to the Gulf and the Mediterranean gave them control of the principal caravan routes with their traffic in gold, precious stones, myrrh, incense, spices, Phoenician purple, wood and exotic animals.

King Obodas I, one of the great figures of the Nabataean dynasty, ruled Petra during the first century BC. Around the year 93, he defeated Alexander Jannaeus, the king of the Jews, in Golan, taking from him the lands of Gilead and Moab. In 85, he killed the Syrian king Antiochus XII in the Negev. These events earned him divine status and he took the title of *Ilaha*, meaning "God". The Nabataean kingdom was now a power in the Middle East and under Aretas III (84-62 BC) it stretched from northern Arabia to the Sinai peninsula and Damascus.

The Nabataean people underwent an astonishing metamorphosis, the former nomads becoming sedentary city-builders. Many archaeological remains bear witness to their urbanizing activities, of which Petra remains the most spectacular example. The city was to play a frequent part in the history of the region in the days of Cleopatra, Herod and John the Baptist.

In 64, Pompey created the Roman province of Syria and, in 106, Trajan ordered its governor to annex the Nabataean kingdom and to turn it into the Roman province of Arabia. The new territory was governed by an envoy sent from Rome, and Petra itself was given metropolitan status.

The region was gradually Romanized and, little by little, its Nabataean character faded. The desert fortress was unable to compete with the economic might of the Roman giant and, in the third century, bypassed by the new trade routes, Petra went into a gradual decline. Under Byzantine rule, a cave temple was transformed into a cathedral, a bishopric was installed and Petra became a a Byzantine administrative centre. In 636, after the battle of the River Yarmuk, the Muslims took control of the region, but since it was not on the pilgrimage route to Mecca, Petra sank still further into decline and neglect.

At the time of the Crusades, the city, by then in ruins, was occupied by the armies of Baldwin I. In 1127, the crusaders built three small forts there, the remains of which can still be seen. The crusaders, however, did not stay there long.

The last mention of Petra, in connection with the Crusades, dates from 1276, during the Syrian campaign of the Mamluk Sultan Baybars against the crusaders. Subsequently,

Petra was lost in oblivion surviving, like Troy, only as a legend.

A city reborn

In 1812, a Swiss traveller, Ludwig Burckhardt (1784-1817), caught a glimpse of the rock-hewn city while making a journey to Mecca disguised under the pseudonym of Sheik Ibrahim. "I regret not being able to give a full report on the antiquities of Sik", he wrote later, "but . . . I was unprotected in the midst of the desert where no traveller had previously gone. . . . The inhabitants will grow used to the enquiries of foreigners and then the antiquities of Wadi Musa will be recognized as worthy to figure among the most curious remains of ancient art."

Burckhardt was soon followed by other travellers—in 1818, the British naval officers Irby and Manglesi; in 1828, the Frenchmen L. de Laborde and M.A. de Linant de Bellefonds. In 1839, David Roberts made some fine engravings of the site. From that time onwards, a stream of scientific expeditions followed. Petra was slowly reborn to become today one of the principal tourist attractions of the Middle East.

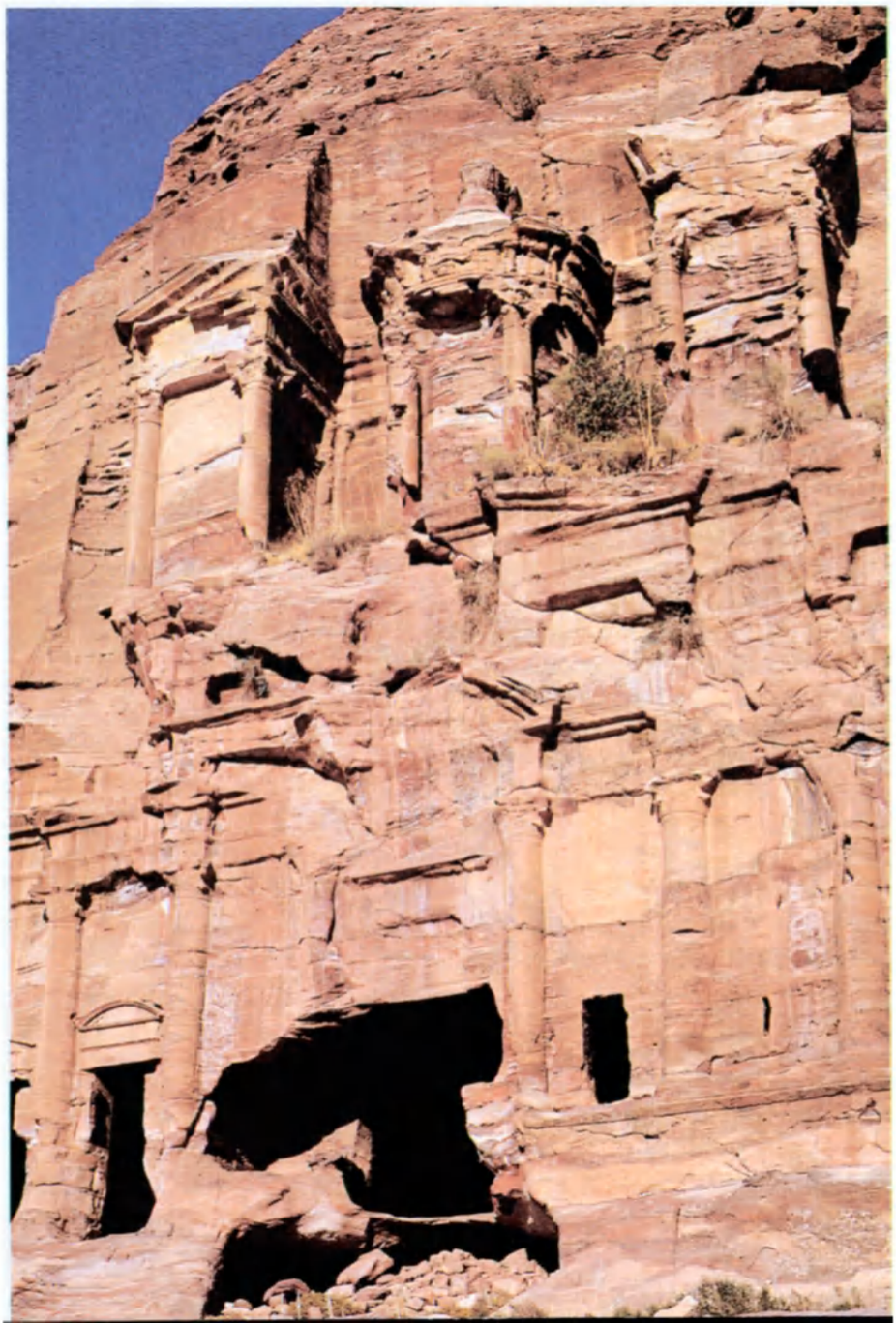
The erosion that originally sculpted the wonderful landscape of Petra has begun to cause serious damage to some of the cliff monuments. Because they are carved from the rock, they are relatively fragile. Like the mountain that shelters them, they are alive. There are many eroding agents—the capillary action of water, saline outgrowths, sandstorms—and their effects are cumulative, a factor that complicates every attempt to counteract them. Controlling the tourist influx also poses problems, for people can in some ways be a supplementary agent of erosion.

In Jordan, the Department of Tourism and Antiquities, Yarmuk University, and the Higher Council for Science and Technology are co-operating to analyse the evolution of the site and to determine the measures that need to be taken to protect it and to prevent further damage. These interdisciplinary studies, involving specialists from such countries as France, Germany, the United States and Italy, are beginning to produce results. There are plans to establish a Petra Natural and Archaeological Park.

Since 1969, UNESCO has collaborated with the Jordanian Government and with French and Spanish missions to complete a large-scale photogrammetric relief map of the site. Since 6 December 1985, the date on which Petra was added to the World Heritage List, the Organization has been giving technical and financial assistance for the study and restoration of important monuments such as the Palace Tomb and the *Qasr el-Bint* ("Castle of the Pharaoh's Daughter"). ■

JACĚK REWERSKI is a French geographer who specializes in erosion and conservation problems and also in troglodytic settlements. Among his publications are *Le monde souterrain de l'Anjou* ("The underground world of Anjou", 1986) and a number of works on erosion at Petra.

Erosion has caused extensive damage to the Corinthian Tomb, right.



Preserving Petra

For several years, Jordan's Yarmuk University has been involved in research into the weathering processes that are threatening façades and monuments in Petra. Major studies have been undertaken in collaboration with experts from the Geological Institute at Aachen Technical University in Germany, as well as with specialists from the National Centre for Scientific Research, the Ministry of Foreign Affairs and the EDF (electricity supply service) in France.

Work is going ahead in the following areas:

- Geological study of sedimentary rocks in the Petra area.
- Research into the tectonics of the Petra massif. Some monuments, including the Treasury, are now showing serious cracks.
- Laboratory testing of various adhesives that could help to consolidate the stone and act as a water-repellent. This preliminary investigation will be followed by field tests on natural rocks in the area in preparation for the actual preservation of the façades.
- Over the past year micro-climatic data have been collected from inside the Palace Tomb, since temperature and humidity play an important part in the weathering process. In addition, wind speed and direction just outside the edifice are being measured, since strong winds also cause damage. ■

T.S. AKASHEH
Higher Council for Science and Technology, Amman, Jordan

listening

■ CLASSICAL

Yehudi Menuhin.
5 CDs. EMI Classics
CDM 763985/6/7/8/9-2.

Last year the whole world, not just music-lovers, celebrated the seventy-fifth birthday of the violinist Yehudi Menuhin. Even if his greatest recordings as a performer (his work as a conductor is another matter) date from the 1930s, he nonetheless produced some fine interpretations in the 1950s and 1960s, and some of the best are collected in this set. His violin sings lyrically in Berg's *Violin Concerto,* with Boulez conducting the BBC Symphony Orchestra, and in pieces by Sibelius and, more unusually, Ernest Bloch and Carl Nielsen. Chamber music is not overlooked. Menuhin is partnered by Louis Kentner on piano in Schubert's *Fantasy,* in the Brahms Horn Trio (Opus 40), Alan Civil plays the horn and Yehudi's sister Hephzibah the piano. Best of all is Menuhin's Bartok—simply incomparable.

Anton Bruckner. *Symphony No.7.*
Silesian Philharmonic Orchestra conducted by Gérard Wilgowicz.
1 CD. GLT Editions 802 (distributed by Harmonie).

This symphony, which dates from 1884 and was never reworked—a rare event with Bruckner—was intended as a posthumous tribute to Richard Wagner, and at its worst it has the ponderous quality of a funeral monument, a slow laboriousness that can seem dull. The models for all future interpretations of the work were provided by the great German conductor Eugen Jochum, one of whose versions is still available in a set of the nine Bruckner symphonies made with the Berlin Philharmonic (Deutsche Grammophon 429079-2). But on the strength of this recording, the Silesian Philharmonic can stand up to the comparison. Under the direction of a conductor who deserves to be more widely known, its orchestral work is marked by supple textures as well as by flights of idiomatic lyricism, and never lapses into pathos.

Emmerich Kalman. Extracts from *Die Zirkusprinzessin* (The Circus Princess).
The Berliner Symphoniker conducted by Robert Stolz, with the choir of the Deutsche Oper Berlin featuring Margit Schramm, Rudolf Stock, Guggi Löwinger and Ferry Gruber.
1 CD. Eurodisc 258363.

The Hungarian composer Emmerich Kalman (1882-1953) studied composition as a fellow student of Bartok and Kodaly, then abandoned "serious" music for the world of the operetta and the company of Franz Lehar and the Strauss family. He was highly successful, particularly with *Die Csárdásfürstin* (The Gypsy Princess, 1915) and *Gräfin Maritza* (Countess Maritza, 1924), before emigrating to the United States in 1938. *Die Zirkusprinzessin* was composed in 1926. These extracts, excellently interpreted by Stolz, show exceptional suavity and charm, and in them the first murmurings of musical comedy can be heard. A minor master perhaps, but a master all the same.

Sir Edward Elgar. *Symphony No.1.*
Overture: In the South.
London Philharmonic Orchestra conducted by Leonard Slatkin.
1 CD. RCA Victor RD 60380.
Enigma Variations.
London Philharmonic Orchestra conducted by Bernard Haitink.
1 CD. Philips 432276-2.

Another minor master, as charming and expert in his way as Kalman, Britain's Edward Elgar (1867-1934) moved in more exalted circles, with the great composers among whose company he sometimes claims a place. There is a touch of Wagnerian prolixity in *In the South,* a youthful work whose inspiration is actually Italian; and despite its beautiful adagio movement, the First Symphony has moments of heaviness. The *Enigma Variations* are infinitely more subtle.

Claude Glayman
Journalist and music critic

■ JAZZ

Roy Hargrove. *Public Eye.*
Hargrove (trumpet), Antonio Hart (alto sax.), Stephen Scott (piano), Christian McBride (bass), Billy Higgins (drums).
1 CD. BMG Novus PD83113.

Jazz masters are getting younger. At the grand old age of twenty-one, Hargrove, whose second record this is, stakes his claim to be the natural successor to Clifford Brown. His tone, which manages to be smooth and sharp at the same time, sometimes also brings to mind Kenny Dorham or Lee Morgan, both leading influences on the new generation of trumpeters. This disc, dedicated to Hargrove's parents and to God, features a dense, dancing music that is as strong as any sound in contemporary jazz. Not a single note is superfluous. Among several Hargrove compositions, all of them interesting, the joyous, Latin-influenced "Lada" stands out. Hart, Scott and McBride, who belong to the same generation as Hargrove, all show a musical maturity that belies their years, while the veteran Billy Higgins, who has played in his time with Sonny Rollins, Thelonious Monk and Ornette Coleman, remains one of the most precise and exhilarating of all jazz drummers. Nectar for the ears!

Niels Lan Doky. *Friendship.*
Lan Doky (piano) with Bill Evans, Randy Brecker, John Abercrombie, Rick Margitza, Christian Minh Doky, Adam Nussbaum and others.
1 CD. Milestone Carrere
9031-73592-2.

Born of a Danish mother and a father from Viet Nam, Lan Doky has recently made his mark both in Europe and America. A product of the Berklee School in Boston, he went on to play with Woody Shaw, Joe Henderson and other musicians of similar calibre in New York. This record includes some New York tracks featuring a whole array of brilliant sidemen, and others made with a Danish backing group in Copenhagen. Seductive and ethereal though it undoubtedly is, Lan Doky's playing suffers from a certain coldness, reflecting the contemporary tendency towards technical perfectionism. But there is much to enjoy in the long solos that are his trademark.

Latin Jazz.
1 CD. CBS 467139 2.

The "Latin" in the title of this enjoyable anthology does not refer to jazz as played by Latin-American musicians, but rather to Latin standards played by North Americans. It features Art Blakey's "Cubano Chant", Bobby Hutcherson's "Un Poco Loco", Duke Ellington's "Peanut Vendor", Dave Pike's "Besame Mucho", Miles Davis playing "Corcovado", and others. This is a happy kind of jazz with a touch of the Dionysiac about it, though still coloured by the pathos of the blues. But these North American musicians, talented as they are, bring a foreign touch to Latin rhythms. Ellington's playing in "The Peanut Vendor", for instance, is beautifully economical in the placing of the notes, but it is not Cuban for it lacks the phrasing that Havana musicians call *clave.* Similarly, the Brazilian-influenced tracks have a less syncopated rhythm than musicians would give them in Rio or Bahia. For all that, this is a record to buy.

■ FOLKLORE

Federazione cori del Trentino. *Armoni di un popolo. Viaggio nella storia e nelle culture del canto popolare trentino.*
1 CD. Ginger GDRX 0123.

Several choirs from the Trentino, a beautiful mountain region in the north of Italy, come together on this record to sing cradle songs ("Dormi, dormi"), ritornelli about love ("La bela bruneta"), and stories in verse ("Quande me son sposà") in the local patois. The words of the songs are printed in the notes accompanying the disc, making it easier to savour the poetry of the language. The polyphonies are varied, rich and sophisticated. Altogether, the record displays a side of the Italian folk tradition as interesting as—though less familiar than—the music of Sardinia or Naples.

Festival de Mariachi.
1 CD. Th. Rodven 2789.

The word "mariachi", they say, came originally from *mariage,* French for marriage. Whatever the truth may be, this is a festive music that owes some of its high spirits to tequila. This compact disc brings together such performers as Beatriz Adriana, Alberto Vásquez, Manolo Muñoz and the Vargas de Tecalitlan ensemble. Lola Beltrán, the brightest star of Mexican music, stands out with her poignant interpretation of "El Rey".

■ POPULAR MUSIC

Retrospective 80/90.
1 CD. VeraBra 2040 2.

The German recording company VeraBra specializes in compilation albums, and this one offers something for every taste. There are the Lounge Lizards, Brazilian music featuring Xiame and Hermeto Pascoal—himself a brilliant multi-instrumentalist and musical jack-of-all-trades—some New York flamenco with Gerardo Nuñez, Israeli pop from Shlomo Bat-Ain, Japanese pop courtesy of Toshiyuki Honda, and Italian pop with Marco Cerletti. In short, buy it for a rapid scan of World Music of the last two years.

Isabelle Leymarie
Ethnomusicologist and journalist

LETTERS TO THE EDITOR

■ Cause for indignation

As a long-time subscriber (for 30 years) to the *UNESCO Courier*, I wish to express my surprise and indignation that there was no allusion in your issue on *Children in danger* (October 1991) to the scourge of female genital mutilation. The practice is still as widespread as ever (80 to 100 million women are affected, some 20,000 in France alone), and so are the pain and the risk of complications and death attendant on it. Imposed on defenceless girls by persuasion or violence, this practice is contrary to Article 34 of the Convention on the Rights of the Child, as is the practice of "early marriage" which is also widespread. Respect for cultures is no reason to endorse such customs, whatever certain ethnologists might say. . .

The United Nations organized a meeting on this subject in April 1991 at Ouagadougou, and UNESCO promised to co-operate in the necessary effort to provide information and education in this field. What a pity that you let such a golden opportunity go by.

Dr. R. Boutet de Monvel
Issy-les-Moulineaux (France)

■ An unhappy childhood

Your issue on *Children in danger* was one of the best you produced last year. Only rarely do the media tackle such important issues as this, and few people really try to combat the dangers which lie in wait for young people. Children are still developing when they reach eighteen, and need guidance and support if they are to have any chance of living a decent life. Many children from unstable, violent and disadvantaged homes do not join gangs and do not express their revolt openly. They repress their feelings, escape into themselves, and shut out the outside world. Some also try to develop an inner strength so that they can have a chance at succeeding in the world in their own way. For these children there is nothing sadder than seeing "perfect" families at the cinema, on television or in newspapers, then going home to be greeted by abuse. As one of them myself, I would say to others living in such an environment that you must be your own best friend; trust yourself and ask for help if you need it. Fancy clothes, money and fast ways out are not the answers to finding a path in life.

Angelique R. Mahal
New York

■ Save Dubrovnik

I should like to take the opportunity of renewing my subscription to the *Courier* to ask UNESCO to condemn the attacks on the city of Dubrovnik, which is inscribed on the World Heritage List. This marvellous city which I enjoyed visiting last year is seriously threatened and UNESCO has, to my knowledge, done nothing to prevent it from being destroyed. The honour and credibility of the Organization are at stake. There is no time to lose!

Jean-Louis Watlez
Bourgoin (France)

On 24 October 1991, the Director-General of UNESCO, Mr. Federico Mayor, and Mr. Javier Perez de Cuellar, Secretary-General of the United Nations, made a joint declaration in Paris on the situation in Yugoslavia, and launched a solemn appeal to all parties concerned to bring to an end the tragic conflict and to negotiate a peaceful settlement of their differences.

In response to reports of damage caused to the old city by shelling, they also called on all parties to respect the principles enshrined in the Convention for the Protection of Cultural Property in the Event of Armed Conflict (the Hague Convention, 1954) and in the Convention concerning the Protection of the World Cultural and Natural Heritage (the World Heritage Convention, 1972).

After recalling that "Dubrovnik is inscribed on the World Heritage List", they stated that they were "sure that all parties concerned will honour by every means at their disposal the undertaking made by Yugoslavia when it ratified these instruments."

On 6 November, at UNESCO's General Conference, Mr. Federico Mayor referred to the situation in Yugoslavia and revealed the results of the mission of the personal representative whom he had sent to Dubrovnik. He pointed out that the Federal Government and the Croatian Government had confirmed their agreement that UNESCO should intervene within the framework of its mandate, and that the staff of the federal army had expressly renewed its commitment not to attack the heart of the city of Dubrovnik. Mr. Mayor also announced his intention of establishing a permanent UNESCO observer in Dubrovnik to make an inventory of damaged property and prepare plans of action on behalf of monuments and buildings that may have been affected.

■ Beauty and ugliness in art

I was surprised to read in your letters column for February 1991 an attack on the work of the painter Hans Hartung.

Objectivity in art involves respect for other people's opinions, so I shall not launch a polemic about the critique, however trenchant it may have seemed, nor put myself forward as the defender of a specific artist or work. But some statements require an answer. . . .

One may well consider a work of art unrepresentative of a style or period, or think it has no place in the development of a particular view of art. But the terms used by your correspondent recall the old Manichean concepts of Beauty and Ugliness from which modern art, in its pluralism, freed itself long ago.

By what normative standards can one set the "superb" profile of Nefertiti against a "stupid" painting by Hartung? What criterion of taste dictates that the colours of a "decomposing fish" are less beautiful than others? Under what ethical system can a painting be said to "bring shame on humanity"?

The arbitrariness of these words is surprising. Perhaps the canvas, like many other contemporary works, reflects the chaos and violence of our time. No work of art escapes the context of its age. Grünewald, Brueghel, the Romantics—all expressed the pain of their epochs. What would the Expressionists be without anguish, the Surrealists without the absurd, medieval art without its metaphysical anxieties?

The merit of our age is to have made art a place of constant questioning, a mirror in which humankind can see itself and the human condition so as to reflect on the meaning of our destiny.

Modern art no longer accepts the concept of beauty which, in the past, forced all plastic creation to accept a pre-established or imposed system of values as its raison d'être. Instead, its aesthetic is in constant evolution.

Rejecting all categorical assumptions has opened the way to a more enriching interpretation of works of art as well as to a wider appreciation of the entire field of artistic creation—an approach that no more excludes rigorous study than it does the joy of creating, viewing and discovering.

There is no disputing that our century, which has called so much into question, has yet to find its own aesthetic equilibrium. Perhaps the coming millennium will define itself from our chaos.

But in the meantime, the phenomenal development of the arts in our time no longer allows us to ignore the importance they have assumed in our lives and the fresh significance they have acquired: that of a constantly renewed tool of self-expression and culture that, without denying the values of the past, is no longer condemned to bear its weight.

Henry Christiaën
Grenoble (France)

■ Reliefs

In your July 1991 issue ("Mozart and the Enlightenment, the Enigma of Genius") the work that you describe on page 15 as a bas-relief is actually in high relief. In other words it is a "sculpture in which the figures are almost detached from the background", as the Pocket Larousse dictionary defines the term.

Delphine Jambon
St-Bonnet-des-Bruyères (France)

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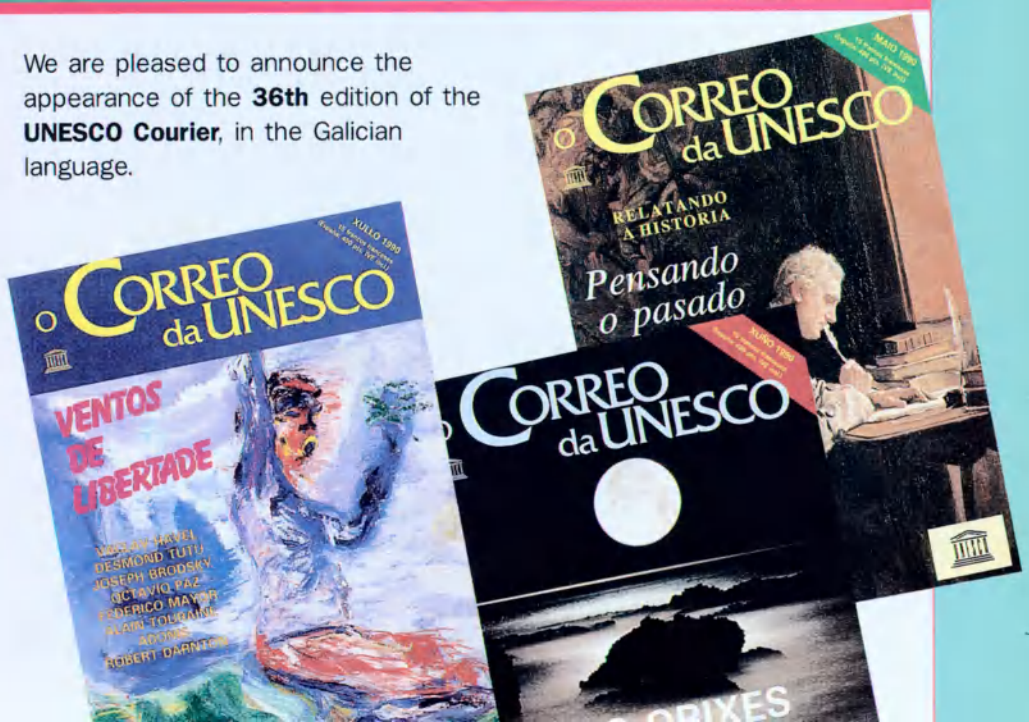
APARTHEID
the beginning of the end

Also featuring:
an interview with African historian
Joseph Ki-Zerbo

We are pleased to announce the appearance of the **36th** edition of the **UNESCO Courier**, in the Galician language.